

\$5.00

The National Locksmith®



July 1995
Volume 66, No. 7

CODES
KAWASAKI, SUZUKI & YAMAHA
MOTORCYCLES
— page 144 —

HOT New Killer Ignitions!

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plus...

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ALOHA '95 ORLANDO

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ALOA '95 ORLANDO

On The Cover

HPC's Codemax□, American Locks 748 Padlock, Strattec's MRD Ignition and Lori's 4500 Series Deadbolt are just a few of the new products open for locksmith inspection at this year's ALOA convention.

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COMMENTARY

Win a prize when you mail in the Rapid Reply Card from this issue!

Once in a while we like to do something fun here at *The National Locksmith*. You know, something like drive a forklift through a locked door to see how well the hardware holds up. Or something less radical, like setting a "mongo" fire to see how a few fire safes perform when the flames really get roaring.



Marc Goldberg
Editor/Publisher

Well, our fun for this month is a lot less violent than our previous attempts at amusement. On the other hand, you might personally benefit!

This month, just for fun, we are offering 25 prizes to be drawn at random from among the Rapid Reply cards sent in from this issue. To enter the contest, all you have to do is tear out the Rapid Reply card located in this issue. Fill out your name and address and circle the numbers of any ads or product items you are interested in. We'll process your information request, and throw your card in the drawing for prizes!

If you do not want to circle any numbers on the Rapid Reply Card, send it in anyway and we will still enter you in the contest. Also, if you circle more than a dozen items, we won't enter you. This is to be sure that at least you're circling numbers you really have an interest in.

Oh, and we even pay the return postage on the card....no stamp is needed. What are the 25 prizes? Well, 25 lucky locksmiths will win our choice of either a 13-function Swiss Army style penknife, or a multi-function folding pliers tool. You've seen similar tools selling in stores and catalogs for about \$50.

So fill out the Rapid Reply card and send it in today. We'll do our drawing thirty days after this issue goes into the mail which means you should send in the card NOW! We'll announce the winners shortly thereafter.

Look at it like this....we have to do something to keep your interest....we can't burn up safes every month!

Are you among the huge number of locksmiths who has a computer? You might notice that an increasing number of letters to the editor and Technitips say "via E mail" after them.

This means that the sender of that information transmitted us the letter or tip electronically, from the comfort of his or her own computer. No stamp is needed, and the transmission is instant!

Plus we have been sending goodies to our mailing list of readers who have E mail access. Basically, anyone with a computer and a modem can sign up with anyone of a number of internet providers including America Online, Prodigy and Compuserve.

We ourselves use America Online. We maintain a huge databank of locksmiths who have E mail capability and we send them news and information about locksmithing as it occurs.

If you are now on computer, hook up your modem and get E mail service. Then write me at natllock@aol.com. Give me the subscriber number off your magazine label and I will add you right into our Electronic Family.

Believe me, if you are not yet on a computer, here is one more good reason to make the move now. I look forward to talking to you online!

Marc Goldberg

America Online: NATL LOCK

Use the above address if you are on AOL.

Internet: natllock@aol.com

Use the Internet address if you are not on AOL.

LETTERS

Comments, Suggestions and Criticisms

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length. Please address your comments, praise, or criticism to Editor, **The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107.** (Or E-mail us at the E-mail address below.)

America Online: NATL LOCK

Use the above address if you are on AOL.

Internet: natllock@aol.com

Use the Internet address if you are not on AOL.

Answering "The NKL Nightmare"

This letter is in response to Dave McOmie's recent misleading article about NKL Safe and me entitled "The NKL Nightmare". Let me begin by pointing out that prior to publication, neither Mr. McOmie nor *The National Locksmith* afforded NKL the opportunity to respond to or comment upon Mr. McOmie's allegations and findings, a practice that's in line with objective journalism, especially where an article accuses a manufacturer of producing a defective product and of trying to "fix" prices. However, one needs only to take a look at the article headline to determine that professional reporting objectivity was replaced by a vicious, self serving, and unfounded attack on NKL.

It seems clear that the author's motive in obtaining pictures and materials for his "moonlighting" reporting job was to make NKL look bad and that *The National Locksmith* aided him in his endeavors by failing to confirm the accuracy and content of his article. As an executive of a company that depends on the locksmith profession as providers of an important service, consider this view that I share with colleagues and members of the security industry: Because of the nature of his work, a locksmith should hold himself to high moral and ethical standards. There is a high degree of responsibility when a locksmith is called upon to perform a

service. In addition to an implied confidence in his ability, the customer places a high degree of trust on the locksmith's ethical behavior. Just as no locksmith would disclose the combination of a safe, no locksmith should pass on sensitive information meant to defeat the security mechanism of a safe upon which he works. Mr. McOmie violated our trust by authoring this article and publishing the photographs of our safe's internal mechanism without our authorization and under such unusual circumstances.

Additionally, his article denigrates the reliability and quality of our safes by alleging mechanical deficiencies. There is no truth to this allegation as our safes are reliable and are meticulously crafted and have and continue to be of the highest quality.

Additionally, Mr. McOmie's chronology of events describing his experience with our pricing structure has been manipulated for his own sensationalizing purposes. The reader of the article may immediately notice that the author was not the locksmith with which NKL contracted for the service described. In fact, Mr. McOmie was a sub-contractor and under those conditions, he should have billed NKL through Gateway Safe & Lock, the original party with which NKL contracted. As is our standard operating procedure, Gateway was notified of the allowable charges prior to the assignment of the authorization number and was given opportunity to reject the work. Once Gateway accepted our conditions, they were bound to comply with our pricing requirement.

I personally authorized Mr. McOmie's invoice out of professional courtesy and only after he agreed not to service NKL safes without our consent in the future. I considered his constructive advice and suggestions regarding the structuring of our service policy and pricing, but did not agree to change them to conform with

his views or set a date to make such changes as he falsely contends in the article. Eventually, certain changes (which resulted in an amount higher than the one suggested by the author) were instituted, but only after we secured enough independent data to validate these charges which resulted wholly independent of his suggestions. Unfortunately, Mr. McOmie chose to go to press prematurely. If he had checked with our company prior to publication, he would have found out that the changes were not instituted at the time.

In 1994, NKL paid out over \$1.2 million in service to over 500 locksmiths nationwide. Over 85% of that amount represented new safe installations, with the balance consisting of recurring servicing costs. This year, this figure is expected to grow by 20-30% making our company a significant source of revenue to the profession. There is an extensive network of locksmiths across the United States that respect our association and consider it good for business. As for the rest of the profession, remember that it is their choice to determine if they want to work with NKL. However, it is also our choice to limit our association to those locksmiths that comply with our requirements and to those locksmiths we feel comfortable working with. If we offer you the opportunity to work with us and for whatever reason you decline the offer, please do us the favor of not complaining when you see your competitor reaping the rewards of our association.

Ray Lorenzo
Chief Executive Officer
NKL Industries, Ltd.
NKL Safe®

Dave Mc Omie Responds: I am not used to the implication that I am immoral, unethical and a liar. But concerning Ray Lorenzo's remarkable

remarks, I offer the following observations:

1. My "motive" in obtaining photos is never to make a manufacturer look bad, as even the most casual reader of my moonlit publications knows. In the Spring 1994 issue of *The National Safeman* I actually praised Ray and NKL for being "open-minded and fair to deal with." In the April 1995 issue of *The National Locksmith*, I complimented NKL on the quality of their hardplate. Mr. Lorenzo's claim of evil motive simply evaporates under scrutiny.

2. Mr. Lorenzo challenges the very purpose for the existence of trade publications and professional associations when he claims that technical articles constitute a violation of "trust." Moreover, he wants magazines to secure manufacturer consent prior to publication. In Lorenzo's world, our beloved magazines would be reduced to mere sales puffery and ads. He seems not to understand that without the exchange of technical information—most of which is far beyond the comprehension of the bad boys and some of which is beyond the comprehension of the manufacturers themselves—there would be no ALOA, no NSO, no SAVTA, and no National Locksmith. Ugh. I, for one, am not about to re-enter the Paleolithic Age, where every locksmith was an island unto himself and shared his ignorance with no one.

3. It is odd that Mr. Lorenzo would accuse me of lying about the "mechanical deficiency" (the relocker misalignment) in the two safes I examined, since he wasn't there. Not only do I have three locksmiths who observed the same problem, I also know where the safes are if Mr. Lorenzo would like to see for himself.

4. Mr. Lorenzo claims that my chronology of events is incorrect, but he doesn't say where. I reviewed the dates on the faxes and letters we exchanged, and I stand by what I wrote. If Ray has misplaced portions of our correspondence, I will happily provide copies to refresh his memory.

5. Gateway Safe & Lock tells me (a) that this was an emergency situation—the safe was to be delivered ASAP; (b) that NKL quoted no price for the opening—in fact, NKL told them to "do whatever it takes" to get the safe opened, repaired and delivered on time; and (c) that the presence of these two factors is what prompted them to bring me in for the opening. Had it not been an

emergency, Gateway would have used their own technicians for the opening; and had they known NKL's price, they would have refused the job. Interestingly, once they became familiar with NKL's demands, my locksmith friends at Gateway quickly dissociated themselves from NKL.

6. Mr. Lorenzo is correct when he says that no precise date was set for implementing the price increase. The implication, however, was crystal clear. In addition to our phone conversations about the increase, Mr. Lorenzo said in a fax of March 28, that he and NKL "realize that an increase is in order" and attached a revised pricing schedule for my review, asking me to let them know what I thought. Well, I did just that. I told Ray that the increase from \$63 to \$130 looked great, and I said so in the next issue of *The National Safeman*. But perhaps I am naive to take people at their word and to draw clear inferences from what they say.

7. Mr. Lorenzo never did answer my question about NKL's claim that \$63 was the national average for the service call and labor to drill open and refinish a B or C rate safe. I would still like to see the data upon which that questionable claim was made, as I'm sure many readers would as well.

8. I never "agreed" not to work on NKL safes. I'll work on them. I just won't do any more warranty openings for the factory, since I value my time much more than they do.

9. Every safe manufacturer can tell horror stories of being grossly overcharged for warranty openings by a few unscrupulous and/or incompetent locksmiths. This has been a problem for a long time, and I understand NKL's desire to fix the problem by fixing the price. But in setting the price so laughably low, they damaged their credibility. And they compounded the damage by trying to pass off their lowball pricing as "the national average." We lowly service technicians may not be business geniuses, but we love our work, and we can tell the difference between a job and a snow job.

Lock Tools Via E-Mail

Dear Marc:

I also have seen notes and letters from people on the internet that offer locksmith supplies for sale. One guy openly stated he would sell anything to anybody. This was supposedly a locksmith. I copied a couple of the letters he had sent and some replies.

And then wrote him stating my thoughts on what he was doing. Since I copied the letters, I have his name and Prodigy number. Also, if you go to the usenets group and search for groups with the word locksmith in the name, you will find others advertising on there. One is a known supplier. Maybe they think that there are no locksmiths on the net yet and think that no one will notice what they are doing.

As for the license, I'm all for anything that will help us as locksmiths, not just take money from our pockets. If the license will allow us to be locksmiths and keep non-locksmiths out, then lets do it. I took the ALOA exam to better separate me from those who aren't locksmiths. Hoping that the ALOA certification would help distinguish me from those people that some call hackers, fly by nighters, and various other names.

I read, studied, did the work and took the test. I think I'm better for it. I think it means something. I just hope that this so called license will mean something. I join the associations and I have to pay for them, I get the magazines and have to pay for them. So, now I'll have to pay for a license. Pretty soon all the money that comes in will be going right back out. So, anyway, a couple of thoughts for you.

Ernest Lay
Via E-Mail

Lock Info On E-Mail

Dear Marc:

After reading the net posting about opening padlocks, I began to wonder about the legality of this type of post and those advertising locksmith tools. Isn't there a federal law against sending these items through the mail? Should we be looking into legislation to restrict the type of information openly posted on the net?

As for distributors who advertise on the net, they should be subject to the same restrictions (as to who they could sell to) as if they were advertising in any printed medium. This would help prevent non-locksmiths from obtaining locksmith tools and lock bypass information.

If a non-locksmith is truly interested in learning about locks, then he/she should take a resident course in locksmithing. At that point he would be able to obtain the tools and information he wants or he could get a job as a locksmith.

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He would then have a legitimate reason for requesting and buying those items.

What do you think?

Steve
Via E-Mail

Certified?

Dear Marc:

Locksmiths seem to have a "mindset" of "I don't have to prove 'nuthin' to nobody," and it's causing the condition of the industry today. As long as this condition is allowed, you will have destroy-and-replace "technicians" out there who haven't got a clue what proper procedure is. What's worse is they don't care. These are the people who cause twice the harm as anyone trying to cause good or advance the industry. This doesn't make for very good progress.

The word "certified" seems to be overused, misused, reused, and abused. Yet, we still take someone's word for it when they say they are "certified." I have a question. What does certified mean? Does it have any importance in our industry? Has it ever?

Every "podunk" correspondence school in the nation promises to make their graduates instantly certified and filthy rich. The reality is that the "six-month" wonder course gives the student just enough knowledge to make them dangerous. I see many of these people who think they know it all – they don't. Ironically, these are the same people I never see in the classroom.

Before we are paying registration fees and getting licensed for no reason and without "prov'n nuthin to nobody," I think we had better hurry to try some self-regulation.

How about if we desert the word "certified." Since everyone is certified, the public is thoroughly confused.

The word no longer has meaning unless it is qualified with an explanation. Even joined with other words, it is useless as an evaluator in the eyes of the public. I'm a certified master locksmith. So what! It means nothing to the public. It only means that I can successfully compare class certificates with the best of them.

If only we had another word, a less abused word, a believable word.

How about the word "endorsed?" How about if members became "endorsed" by their associations. It sounds more official to me. Is this a

new beginning?

R.W Staples, CML
Washington

Who Owns Openings?

Dear Marc:

I guess I am writing because some of these locksmiths are so negative about police opening cars. They make it sound like business is being taken away from them, but the business was never theirs to begin with. It's like I lost money last year because I didn't get the master key job I bid on. It wasn't mine to begin with. I feel the police will slowly stop opening cars because they are simply getting more complicated to open. I had jobs where the police couldn't open the car and stayed to watch me do it. I let them watch and look. They see that my openings are calculated and that my tools are not some cheap homemade model. I had one officer tell me that opening cars was one of the last goodwill gestures that they can do. My town isn't large enough to support too many locksmiths, so we can't be in all places at all times. But, then again, if they stop opening cars maybe I could hire another locksmith.

Just my opinion. Thanks for the E-Mail.

Norm Zurawski
Via E-Mail

Lockout Dependent

Dear Marc:

If locksmiths are dependent on auto lockouts for their income, they are in bad shape. They need to re-examine their sales approaches, shop goals, etc. Lockouts are a courtesy service rendered by the locksmith when he has the time or available technicians. They take away from profitable service calls, get you out of bed at all hours of the night and in all weather and are really a pain.

I have been in this business for close to 30 years and I have done a lot of lockouts. I have argued with the police, city hall, and all the rest. We have to put up with an ALOA/ SCLA member who has a police radio in the service van and is called by the police dispatcher. This locksmith doesn't even live in town but was forced to buy a city license.

I used to get very upset over this until I took a look at what it was costing in time, effort, gasoline, insurance, wear and tear on the vehicles, keeping tools up to date and

more. We decided to ignore the cops, wrecker services and other jackleg locksmiths who think auto lockouts are God's gift to the locksmith.

At that time we suddenly found ourselves ahead of the game. I raised my prices for opening cars and homes and decided that if the client wants to pay me a worthwhile price for opening their car, then I will do so. If they want someone cheap, then we send them to the other lockpoppers. We do just as many lockouts as before, make a lot more money and don't get up at 3 a.m. very often. I charge \$100 to go out at 3 a.m., and now and then someone will pay it. For that, I will get up but not for less.

You can go to the nearest auto parts house and buy opening kits, slimjims and more. Every pseudo locksmith and his/ her brother carries a slimjim in their trunk. They don't know how to use them and I love it. We do an average of two cars a week and sometimes more, at high prices, to put linkages back on and clean up the mess.

Nothing makes me happier than to pass a police officer ramming a slimjim down in a door like a rooter. I will often stop, hand the civilian a card and tell them that after the officer has destroyed their door locks to call us and we will fix the car. It upsets a few cops but I wouldn't give a pile of horse hockey for their opinion of that.

It is time for locksmiths, professional locksmiths that is, to get off their back ends, stop crying about lockouts done by the cops, and devote their time to electronic access control, high security keying systems, restricted key systems and the profitable, professional things a locksmith should be doing.

Sure, I know you like putting that extra cash in your pocket and not telling the IRS, but you best watch your step there. Surprising how many waiters, waitresses, etc., have gotten their butts cleaned by the IRS for not declaring that "cash" income.

Nuff said – now you can wind up your flames – have fun.

Lee Griggs
Via E-Mail

Response To Griggs

Dear Marc:

In response to Mr. Lee Griggs and his comments on police officers opening cars. Talking about flaming,

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I'm glad after thirty years Mr. Griggs can afford to turn down work or price it so high most would turn it down. I know he suggests other means of making money, we do all of that. I am a full service locksmith and will do any job that will pay my bills, including fighting for those lockouts.

Mike Ledger
Via E-Mail

Stop Police Openings

Dear Marc:

Please pass on to the readers that the best way to stop police from opening cars is not to go head-to-head with them. Go to your local mayor's office and find out who handles the city's insurance. Then call them and ask if they know that the police are opening cars.

Every insurance company that I know of, where this has been attempted, has told the city that it will not cover any damage done unless there is a life-threatening situation. Then tell anyone who will listen that the police are responsible for all damage that they do while trying to open the car.

The police will try to say that they aren't liable but the courts have

already ruled that they are. If the repairs have to come out of their budget, they will cease and desist. Hitting them over the pocketbook is much better than trying to hit them over the head.

Bill Mandlebaum, CPL
Via E-Mail

Satisfied NLAA Member

Dear Marc:

I just got my first copy of *The Automotive Edge* and have been reading it. It should be a great help. The article on GM truck door lock removal has already answered a lot of questions that I had. Keep up the good work and I'm looking forward to part 2 of the Lexus article.

Robert Harris
Via E-Mail

Lock Picking Parrots

Dear Marc:

As a regular subscriber to *The National Locksmith* I would like to share this humorous and true story with you and your readers.

I just returned from a two week holiday in Costa Rica. During my stay at the Tamarindo Resort I met Clancy, a green parrot, owned by Gina, the

wife of the general manager.

Gina, who hales from Australia, told me that at one time Clancy's large cage had an old padlock operated by a barrel key. They would lock the cage and a while later he would be out and sitting on top of it. This happened several time and they couldn't figure out who was letting him out... and how. (In Costa Rica there are many Iguanas, and they are not friendly to parrots, so it was very important for him to be secure.)

One day she and her husband caught the culprit in the act. It was Clancy! he had his beak in the keyhole and with the aid of his foot, he picked open the lock. Now Clancy's cage is secured by a paracentric lock!

I suggested they change Clancy's name to Houdini and have me install an ASSA padlock!

It was difficult for me to believe that a parrot could pick open a lock, even as I was relating the story to another tourist. She was neither surprised, nor skeptical. She told me her grandmother in Denmark had once owned a lock picking parrot. This parrot was very possessive and didn't like her grandfather. He would pick open his lock, chase her grandfather out of bed and sleep with her grandmother. It eventually became a choice of one or the other and yes, you guessed it ... the parrot had to go.

Bill Hampson
Canada

Impressed With Test

Dear Marc:

Our company received our issue of *The National Locksmith* (April 1995) and I was impressed with the test that was performed on various lock manufacturers hardware. Yes, the phrase "a deadbolt is just a deadbolt" is not true. We as security professionals need to educate the general public on the truth. Nothing can compare to quality and proven reliability. The same is true when a lock manufacturer improves on a design, it becomes our responsibility to let people know the difference between a \$6 lock and a \$30 lock.

Keep up the good work and I think it's wonderful too see us entering the electronic age of communications!

Duane L. Bennett
Via E-Mail

TNL



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it's Schwab Safe.***

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VIEW POINT: A MATTER OF RED TAPE

**A mistake or a difference in interpretation.
Carl examines the GSA rating and the
implications it has on the safe tech.**

Carl Cloud



I Stand Corrected

In the February issue of *The National Locksmith*, I presented an article called "Mosler G.S.A. Files, Part 1." As part of the introduction to the article, I included a paragraph that stated:

"If a lockout occurs within a container using the new red label drawer and drilling is required, it cannot be repaired. No repair methods are acceptable for the restoration of the drawer. A complete new head must be installed to reinstate the security rating of the container."

The error of my statement was brought to my attention by Allen Halverson, a G.S.A. container expert and confirmed by Vaughan Armstrong, from the Department of Defense Lock Program at the Naval Facilities Engineer Service Center. The stated paragraph is true *only* when the opening procedure involves cutting into the drawer and severing the opposing locking bolts.

The most recent publication of the National Industry Security Program Operating Manual (NISPOM) released in October 1994, in part states:

"These containers, sometimes referred to as RED labeled containers, have a substantial increase in lock protection which makes the traditional method of drilling extremely difficult. The process for neutralizing a lockout involves cutting the lock bolts by sawing through the control drawer head. The

only authorized repair is replacement of the drawer head and locking bolts."

The term "sawing" refers to the use of hole saws or abrasive cutting wheels. A hole or slice is created through the drawer face on either side of the lock case and the lock bolts are severed. If the container is opened with this procedure, the entire drawer must be replaced. My printed statement is true *only* when this opening procedure is utilized.

What opening procedure do you use on a red label security file if a Mas-Hamilton X-07 fails? A telephone call to Mas-Hamilton with the containers serial number is the first step. They will advise you of the warranty status and take you through factory procedures to overcome the lock out without drilling. If all opening attempts fail, open the security file by slicing the locking bolts. This will preserve the lock for an evaluation of the malfunction and will enhance the possibilities of replacement of the lock under the warranty.

So, can a G.S.A. container with a red label be drilled and repaired? Yes. The drilling must be concealed under

the dial ring. All repairs must comply with the specifications of repair as stated in the D.O.D. manual 5200.1R, which is covered in Part 2 of the Mosler G.S.A. article.

Mr. Armstrong also informed me that Mosler never made an insulated G.S.A. container. The requirement for insulation was lifted by an Executive order from President Kennedy. The insulated container was made by Diebold in 1982.

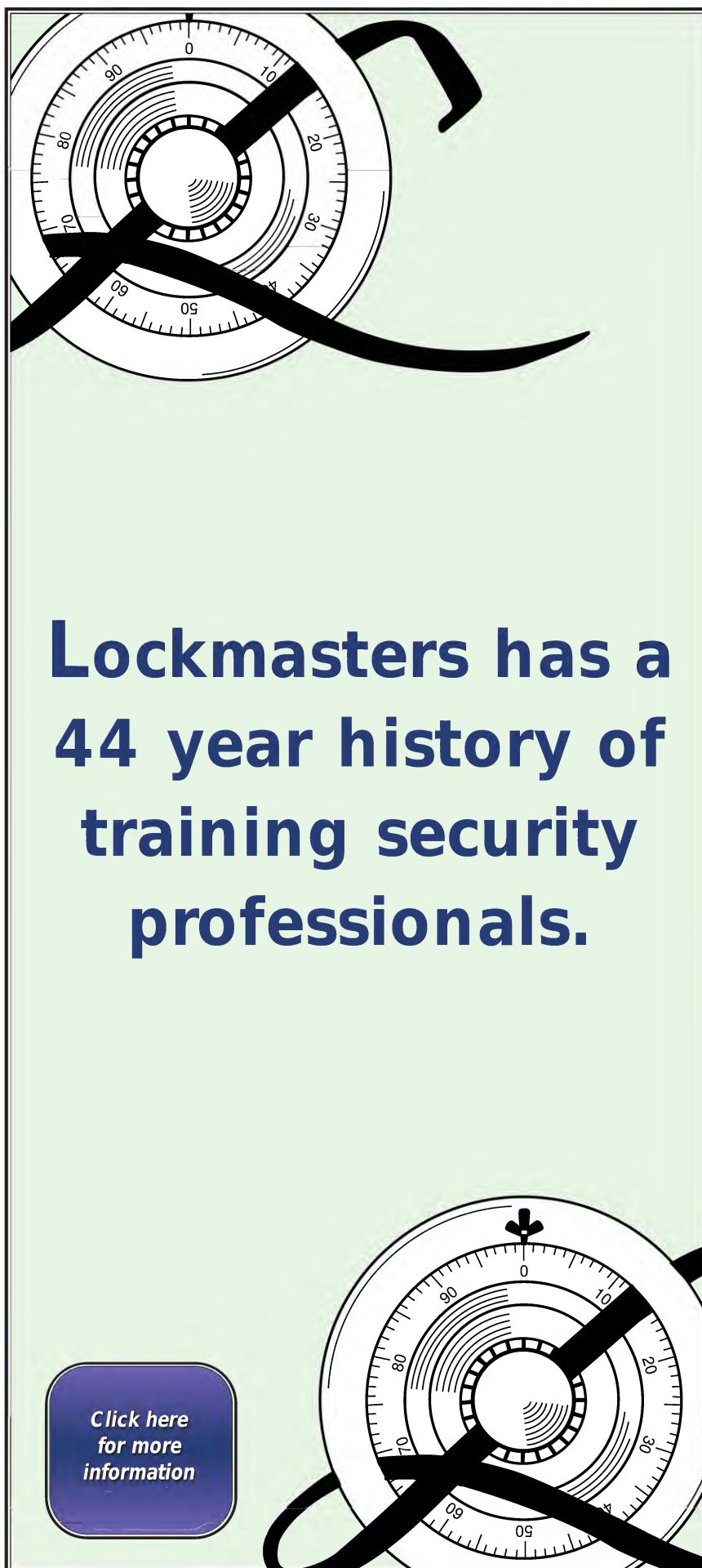
My thanks to Allen Halverson and Vaughan Armstrong for clarifying these opening and repairing procedures.

The author's perspective

It's strange to me that our government would expend the research and cost to create a new age version of security files and still allow the penetration area (behind the dial ring) to be repaired. It is my understanding, the repair of the silver/black label drawers were being found not meeting the repair specifications. Consequently, the security of the contents was being jeopardized.

The new silver/red label files are equipped with an expensive electronic lock, protected by an improved drill resistant material and a convenient method of replacing the door head. What a perfect time to rule that all control drawers of silver/red label security files cannot be repaired. This would mean that every silver/red label file in use within the country

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Lockmasters has a 44 year history of training security professionals.

[Click here for more information](#)

Continued from page 16

meets the exact specification as it left the factory of the manufacturer!

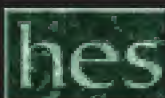
The present G.S.A. repair specifications state, if the face of the drawer head is sliced by abrasive cutting wheels or by hole saws to sever the locking bolts, it cannot be repaired. Why? Because most of us safe technicians don't have the metal work expertise to completely conceal the repair from detection — and we can't have a sloppy repair where it shows. But, you can drill a hole that violates the security surrounding the combination lock, and you can repair the entry hole! The reason - because the repair is now concealed behind the dial ring — as, who's to know?

Who's to know if the repair meets specifications? Maybe all repaired drawers should be approved for use by a G.S.A. inspector. After a hole has been filled in with weld on both sides, is it possible for he/she to possibly attest to the depth of the welds or if indeed there is a pin, dowel, bit or bearing buried beneath the weld? No matter how proficient the repair is made, obviously the repaired area could compete with the original penetration resistance.

There are rumors within the industry. Topping the list is a need for a revised and corrected method of repairing the new hard plate. A couple of individuals are researching materials and an acceptable procedure for repairing the penetrated area. One of the possibilities being tested is a cast plug that sockets into the hole.

The method of entry by severing the locking bolts saves the very expensive lock. A parts price list from Hamilton Products Group shows a complete drawer head with all hardware and lock at a retail price of \$2,079. The X-07 lock is priced at \$1366. A complete replacement drawer head, less the lock, is \$713. Why would you, or your customer want to drill the lock? Sever the bolts, open the drawer and remove the X-07. Trash the drawer head and install the customer's lock into a new head. There is now no question to the integrity of the drawer or the security of its contents.

Maybe this is just too simplistic for the bureaucrats of our government. This is my perspective, what's yours? **TL**



Sentry's Keep/ Safe

Portable Lock'R

Designed for keeping small personables safe, the Portable Lock'R is an excellent impulse purchase item the locksmith can offer his customers.



by
Dale Libby

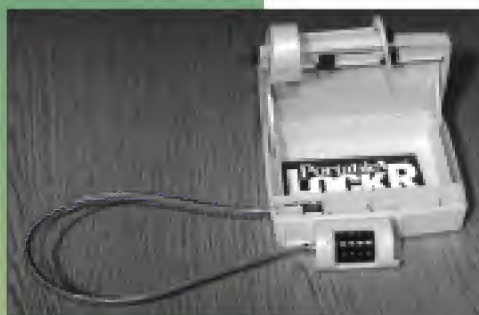


Photograph one shows the looped cable position. The end of the cable can be looped around a post or fence. The

1. The cable position of the Portable Lock'R by Sentry Safe.

locker door is then shut and the end of the tough stranded aircraft cable inserted in its slot. This secures the end of the cable to the box and also locks the box securely shut. The cable resists cutting.

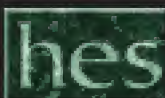
The second way to fasten the cable to the box is shown in photograph two. The solid cube at one end of the cable can be affixed in a channel in the box in one of three different positions. If the cable is at the right of the



2. The cable can also be looped by closing one end within the box. The size of the loop is determined by the placement of the loops end in a channel inside the box.

combination wheels the cable is shortest when locked. If the cable is to the left of the wheels the cable is at its longest.

After putting your valuables in the box and positioning the end of the



cable in the inside of the box, the lid is then closed. Now the cable can be looped through a bicycle wheel and around a post. Not only will this protect your valuables, but also somewhat secure your bicycle.

Your customer must realize that this is *not* a primary bicycle lock, and not a safe deposit box, but a small portable plastic locker that can



3. The box closed and combination lock locked.

temporarily secure valuables and bicycles. Photograph three shows the box in the locked position with the cable inserted and wheels turned.

Changing the combination of this lock takes about one minute and can be easily done by the owner with no special tools. There is a large metal plug to the left of the combination lock. This must be rotated about 45

degrees with the tip of a pen or pencil to allow the locking slot to be turned to the opening position.

Once the plug is turned, it can be removed by shaking the box on its side. Along with the plug, the four wheels will fall out of the combination chamber. The wheels and plug can be seen in photograph four. This wheel pack is, in fact, made by Master Lock Company and is identical to changing the combination on the Master Combination Padlock.

The lock should be in the open position and the cable removed when doing this. When the wheels are out, four geared inner wheels are seen. One ear of each wheel is colored with red paint. This indicates the position of the opening slot in the lock. All one has to do is to reinstall the four wheels noting which number is over the painted spot. This is the number of the new combination. There is really nothing to it.

The locking mechanism is common to cable locks, but this one is quite well made. I tried to manipulate it open by putting pulling pressure on the cable and turning the wheels. I did not feel any difference until I had



4. Removing the wheels to change the combo.

three of the four wheels arranged, and then it was minimal. Manipulating this lock open would prove difficult. The unit carries a 3 year limited warranty.

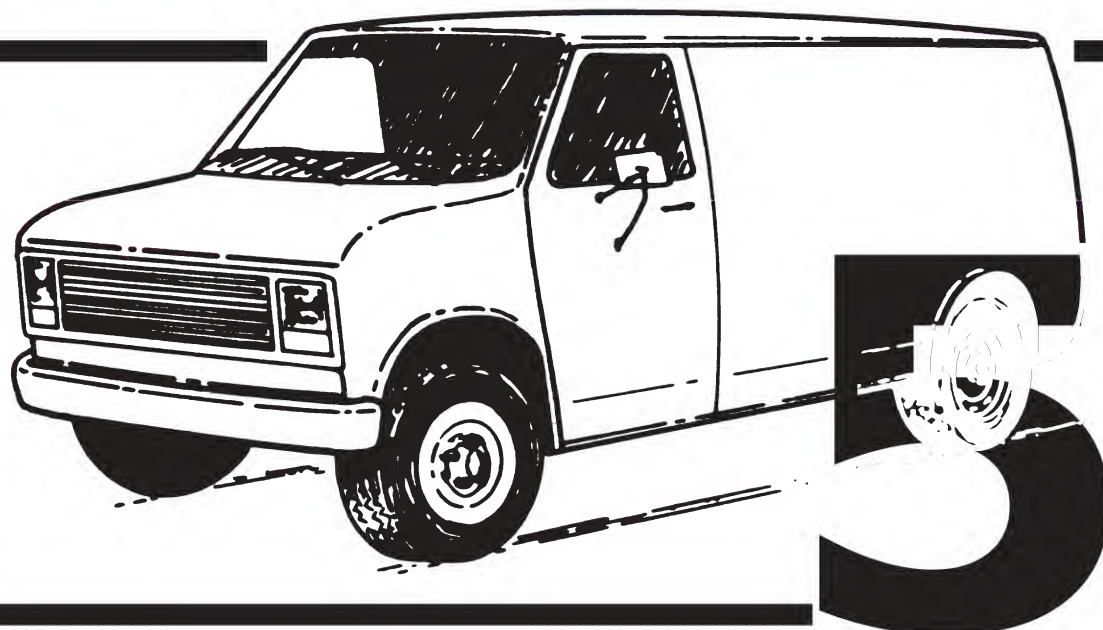
In conclusion, the Keep/ Safe Portable Lock'R is a well made unit with a clever application of security and serviceable usefulness. This will be a great impulse item for the locksmith to have for sale. It is brightly colored and well packaged.

For more information you should contact Sentry Group, 900 Linden Avenue, Rochester, NY 14625-2784. Phone (800) 828-1428. 



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-STEP PLAN TO A VAN INTERIOR

ROB KLOESSNER OF COMMERCIAL VAN INTERIORS GIVES FIVE STEPS FOR CREATING A WORKABLE AND VERSATILE SERVICE VEHICLE INTERIOR.

So, you've just bought that new van and you're probably in a daze by the cost of today's vehicles and the dilemma of making sure you get your money's worth.

This is the typical state of mind most customers are in when they come into one of our stores with a new vehicle. And, while there's not much that can be done about the cost of that new van or truck, there's a lot you can

do these days to set it up right.

Getting Started

The first two questions most people ask themselves are "What's available for my vehicle?" and "Where can I find it?" Your best bet in



1. CVI's General Locksmith Package for full size vans includes a variety of modular drawer units, cabinets and shelving. It also features a full length workbench, two sloped key machine bases and a walk-through safety partition.



2. Modular equipment offers flexibility to satisfy individual requirements. Arrangement above includes small and medium size drawers, cabinets, window style partition and reference storage area.

Continued from page 22



3. RediBench module shown above features retractable workbench, wheelwell cabinet, small and medium drawers, sloped key machine base and accessory lighting.

finding a source is to ask a friend or associate who may already been through this process. If you have no luck here, look in your local yellow pages under Truck Equipment (or Truck Bodies in some books) or Van Conversions - although this will generally list recreational vehicle conversion companies.

You might also look for equipment ads in industry magazines. And, keep an eye on other types of trade vehicles for manufacturer's labels with a name and telephone number. Then call these companies to see if they have local distributors

for their products.

The ideal situation is to find a local company who not only handles these products, but who also has equipment in stock and can provide professional installation. Your likelihood of finding this type of distributor will be much higher if you live in or near a large metropolitan area. (See photograph 1.)

The Fundamentals:

Once you're over this first hurdle and have started looking at what's available for your new vehicle, you might be surprised just how far the industry has come in recent years. To simplify the planning process, we recommend the following step by step procedure.

Step 1: The initial consideration of almost every locksmith service vehicle interior (as with any trade vehicle) is the storage of tools, stock, parts, reference material, etc. To help you organize all of this, you can now buy drawers, cabinets, bins, racks and shelving that are designed for vehicle applications and that can be mixed and matched to create an almost unlimited variety of interior configurations. These products are manufactured by a few companies

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offering relatively extensive product lines that basically differ in color (and a few minor design differences that are due to each company's manufacturing methods).

Many of these items are modular in nature - meaning that the individual components (drawer units, cabinets, etc.) are uniformly sized so that they are interchangeable to allow you to create multi-component 'modules' tailored to your needs. For example, you may prefer to have small parts drawers incorporated into a modular section rather than large drawers, or you may prefer cabinets over drawers, etc.

Remember, the goal at this point is to determine what will satisfy your tool and equipment storage needs - without going overboard. (See photograph 2.)

Step 2: Next, if you're like most mobile locksmiths, you need to think about a workbench area. The issues here are how much workbench space you will need and how you generally like to work. Although a few locksmiths prefer to work from outside the vehicle (at the side or rear door), most need a dedicated workbench area in the vehicle that they can sit at with everything within easy reach. Those locksmiths with walk-in step or cube vans generally take advantage of this extra height with a standing height workbench.

Since the workbench area itself is highly personal and is a little different for each individual, locksmith workbench requirements are somewhat different for the equipment manufacturers to satisfy. As a result, we at Commercial Van Interiors generally build each workbench to fit the interior package and the customer's personal specifications.

When you plan your workbench area, you want to make sure you have an area for your key cutting machines as well as a clear general work area (for pinning, etc.). You also want to make sure the area is comfortable to sit at and you've got what you need right nearby.

Two products (we offer at CVI) that are quite helpful to the locksmith are the Sloped Key Machine Base and the RediBench retractable workbench module. The Sloped Key Machine Base tilts your key machine towards you to minimize the stress on your back from leaning over the machine.

It's available in two sizes to handle either one or two machines. The RediBench retractable workbench modules features a pull out workbench that creates a lot of legroom when extended. When not in use, the RediBench closes flush to the shelf unit it is mounted in to maximize the vehicle's 'aisle' space. (See photograph 3.)

Step 3: The next thing to think about is key blank storage. The simplest and most common methods of storage is either in compartmentalized small parts drawers or on a pegboard section mounted on an

exposed vehicle wall or some other flat surface. To keep keys from falling off the hooks, special pegboard hooks are available for vehicle applications - or you might try a wire nut screwed onto the end of a standard pegboard hook. You might also look at the various forms of keyboxes and key cabinets on the market - some even come in the form of a seat stool. (See photograph 4.)

Step 4: Plan your electrical requirements. This is very important since most mobile locksmiths need on-board power to run their tools and machines. While some cutting



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4. Customized workbench area above shows use of a pegboard for key blank storage and fluorescent lighting over work areas.

machines are available in direct current (DC) versions and can run off the vehicle's electrical system, most tools need a power source that supplies alternating current (AC) - the same power you get from the outlets in your home.

AC power can be created in the vehicle either through a generator (which actually generates power) or from an inverter (which electronically converts the vehicle's DC current to

the necessary AC power your typical tools require).

Most inverters and small generators are wired directly to a vehicle battery for their power source. It is generally recommended that an auxiliary battery be installed that is 'isolated' from the vehicle's main battery (to prevent you from running down the battery that starts your vehicle and runs its lights, radio, etc.) This is especially true for generators or inverters that are used for longer periods of time or have a larger power output, as these obviously draw more power in order to create more power. (It should be noted that most inverters currently come with a low battery cut-off, not allowing the battery to be drained too low.)

For really large power needs (to run several tools, lights and accessories at the same time), you may need to consider a gas powered generator which is often connected into the vehicle's fuel system. If installed inside the vehicle, this type of generator will usually require a sealed housing with exhaust openings to protect you from the fumes it creates.

Step 5: The final step in our planning process is adding accessories and building in 'creature comforts'. This includes lighting that suits your needs, adding fans and creating storage areas for the miscellaneous things that make the vehicle more pleasant to work in.

While the basic guidelines described here won't address every issue you may have, try these simple five steps when you get ready to outfit your next vehicle. If you are a 'do it yourself' person, take your time and plan your entire interior 'package' before you start - thinking about how your needs in any one of the steps might affect each of the other areas mentioned above. And, if possible, consider having everything done by a professional outfitter - you may even realize a savings when you consider the value of your time doing the work yourself.

*The author is President of Commercial Van Interiors. If you have questions regarding an interior for your service vehicle, they can be contacted at 8840 St. Charles Rock Rd., St. Louis, MO 63114. Phone (314) 423-7477 or fax (314) 427-1525. **TNI***



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GENERAL SECURITY

Test Article #91

The Schlage S200 Interconnected Lock

by Giles Kalvelage

The National Fire Protection Association's Life Safety Code (NFPA 101) provides for the recommendations of requirements for door hardware and locking mechanisms on fire exit routes, including exit doors. Without going into great detail, let us just say that it requires that a door be fitted with a simple means of exit (knob, lever, push bar, etc.) that requires no more than one operation to release. (There are exceptions with respect to private entrance doors.) Couple these regulations with those of the Americans With Disabilities Act and it seems almost hopeless to cost effectively secure small to medium sized office or business space.

For example, one small office/warehouse complex protected each tenant with a Schlage A Series lockset on each of their perimeter doors. The occupancy load of these spaces did not require the use of panic or fire exit devices and tenants were rightfully asking management for additional security. Some even went as far as to install deadbolts on their doors.

However the local fire department discovered that the although the deadbolts operated with a thumb turn from the inside, it required two independent unlocking motions to unlock the door. In a fire, in the dark with a power failure, while a seasoned employee may have no problem, it was argued that a new employee or a visitor might not be able to figure out how to open a strange door requiring two independent unlocking actions; and, thus, be trapped in a burning building.

In such a situation, an interconnected lockset is the answer. An interconnected lockset is a lock that includes

a cylindrical lockset and tubular deadbolt that work jointly. When the inside knob is retracted, not only does the latch retract, so does the deadbolt. At one time, Schlage made an interconnected lockset known as the



1. Outside view of the Schlage S200 interconnected lock.

G Series. When the doorknob was locked from the inside, the outside knob spun freely, thwarting any attacks with pipe wrenches. The deadbolt could be thrown from the inside with the thumbturn or outside with the key. From the outside, there was only one keyhole. Turning the

key would retract both the deadbolt and the latch. Installation required a door preparation of five holes (three on the face of the door, two on the edge). These holes were at unique positions, making retrofitting with new hardware almost impossible. Though they've been discontinued for many years, they can still be found on many homes and multi-family dwellings.

The Schlage G series interconnected lock was later replaced by the Schlage H series interconnected lock. The H series shares many of the same components of the B100 and 400 series deadbolts and the A series cylindrical locksets. The outside knob is available in both locking and passage functions. The passage function relies on the deadbolt for its security.

Those functions which require a locking doorknob require a key to independently unlock the doorknob and the deadbolt from the outside. From the inside, turning the doorknob unlocks both the latch and deadbolt. Installation requires the same preparations as a standard cylindrical lockset and a standard deadbolt. The only requirement is that the cross bores be spaced exactly 4" apart center to center. Because of the "standard" door preparation and the



2. The S200 interconnected and its components.

Continued on page 30

Continued from page 28

sharing of many repair parts between the H and A/B series locks, repair, replacement and retrofitting is much easier than with the discontinued G series.

When ADA was introduced it inadvertently challenged the H series interconnected lockset. While a lever handle is available in the H series, the lever handle is only available in a non locking passage function. This requires that the deadbolt be thrown for security. Many occupants desire that the knob be locked as well. This is useful to assure

that the door automatically locks during the day, allowing access only to those employees with a key or those "buzzed in" with an electric strike. The deadbolt is used for overnight protection or times when employees are not allowed access. Since the locking handle option is not available in H series lever handles the H series fell short for many occupants.

Currently the Schlage S200 series fills this void by offering a Grade 2 lever handle interconnected lockset. (See photograph 1.) While the lever handle chassis is available in a

passage function (S210PD), it is also available with locking lever functions - Entry (S251PD), Classroom (S270PD) and Storeroom (S280PD). Obviously, all have deadbolts which open from the inside by turning the deadbolt lever or by turning the lever handle.

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3. Distance, center to center, is 4"

Many of its parts are shared with the S series lever handlesets and the B400 series deadbolts. (See photograph 2.)

Installation

The door prep for this lock is the same as that for the H series interconnected lockset. New installations require a 2-1/8" cross bore for the lockset and a 1-1/2" cross bore, 4" center to center above the lockset hole for the deadbolt. (See photograph 3.) Edge bores are 1" in diameter at center of the cross bores.

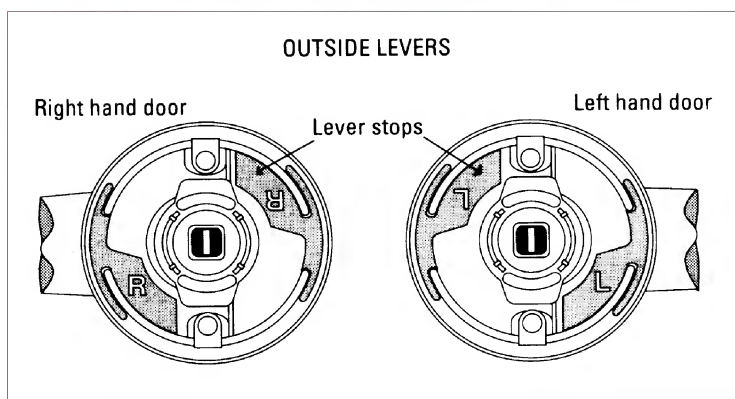


4. Select the proper handing and install the backplate

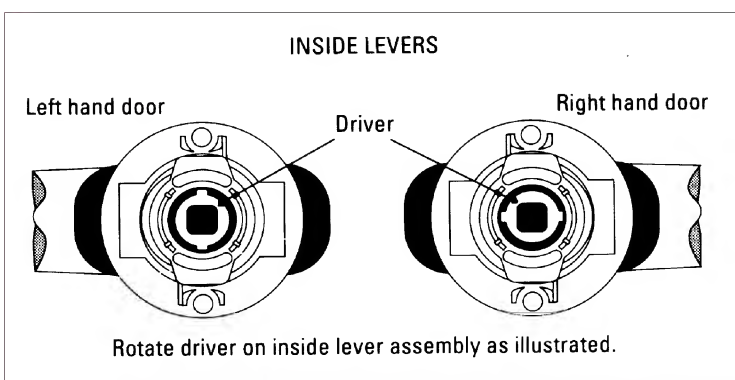
It is recommended that the lower hole be centered at 38" above the finished floor.

Inset the deadbolt and latch into the edge bores. Note that while the deadlatch is universal for both 2-3/8" and 2-3/4" backsets, the deadbolt backset must be specified. (The B400 series bolt is rated superior to the adjustable B100 series bolt in terms of strength and durability.) For ease of assembly, the deadbolt should be extended.

Insert the deadbolt tailpiece into the cylinder. Our sample has a 6 pin cylinder, B400 series deadbolt housing with reinforced trim rings, and a 2-1/8" to 1-1/2" reducing adapter for retrofitting an existing installation with a 2-1/8" diameter deadbolt hole. Insert the cylinder housing into the appropriate trim ring(s) depending upon the thickness of the



5. Hand the lever stops inside the lever.



6. Check the driver position of the inside lever and adjust if necessary.

door. Insert the assembly through the deadbolt.

Position the mounting plate over the tailpiece. Rotate the cam according to the hand of the door. In our case, the cam is rotated to "R" for Right Hand. (See photograph 4.) Secure the deadbolt cylinder housing to the mounting plate with the mounting screws provided. It will be necessary to rotate the tailpiece cam to expose the mounting screw hole.

Most lever handle designs are symmetrical and handing can be field reversed or adjusted. Our sample, the Flair lever, is not symmetrical and handing is not reversible and must be specified. Regardless of design, the outside lever handle contains two lever stops on the inside of the housing. The stops restrict the amount of turn that can be applied to the lever handle, thus protecting



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inside mechanisms from hyper-rotation. These stops are labeled with an "L" or "R" for left and right hand respectively. To change the hand of a symmetrical outside lever handle, simply remove the stops and reverse them. (See illustration 5.)

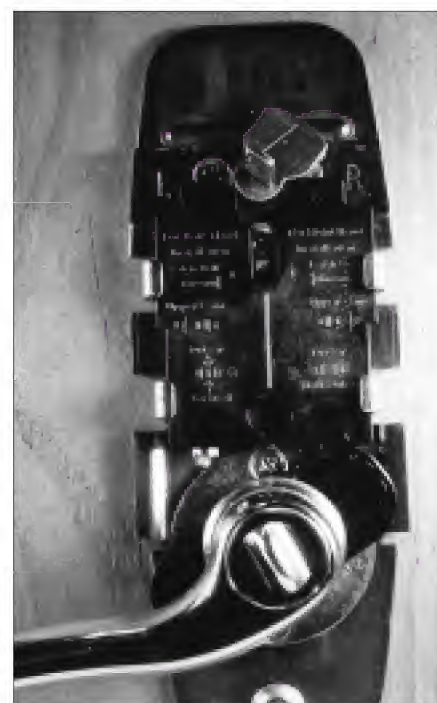
Insert the outer lever handle chassis through the door. Check the driver position of the inside lever handle. For right hand operation, the driver should be horizontal, left hand is vertical. (See illustration 6.) Adjust the mounting plate, if necessary. Lift the slide on the mounting plate out of the

way to install the inside lever handle. Secure the inside and outside lever handles with the mounting screws provided. As the inside lever handle rotates, it is apparent how the mounting plate slide is lifted to retract the deadbolt. (See photograph 7.)

Install the escutcheon by sliding it over the inside lever handle and securing with the screws provided. Test lock operation and installation is complete.

Rekeying

Keying specifications are the same as for the rest of Schlage's



7. As the handle rotates the mounting plate slide retracts the deadbolt.

conventional pin tumbler line. The cylinders are commercial quality 6 pin. The driver of the lever handle cylinder is that of the S Series cylinders. The remainder of the cylinder is interchangeable with the A/B/D Series 6 pin cylinders. Removal of the cylinder from the lever handle requires turning the cylinder plug 90 degrees with the key, or by picking the lock, and depressing the catch on the side of the handle. To remove the deadbolt cylinder, the inside escutcheon must be removed to expose the deadbolt mounting screws. It is not necessary to remove the mounting plate, the inside lever handle, or the remainder of the outside lever handle chassis.

Conclusions

The S200 Series interconnected locks provide a good level of security for Grade 2 applications, such as light duty commercial or heavy duty residential applications. The automatic deadbolt retraction when the inside lever handle is rotated not only makes for a safety feature, it is convenient as well. The S200 series lock is easier to install on a fresh door than a dormitory function mortise lockset. Finally, at an approximate retail cost of around \$170, it makes good economical sense for an application which requires the egress of a lever handle and the protection of a deadbolt. **INL**

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AUTOMOTIVE SECURITY

Test Article #92

The 15 Minute Ford 10-Cut Key

by Michael Hyde

There has been much talk lately about making Ford 10-Cut keys. Actually there has been much talk about this subject since 1984. Varying methods, techniques and tools have been developed for generating first keys for these vehicles, and the battle has always been to find the fastest method possible. So, how long does it take you, to produce a working 10-Cut key? If there was a way that would take you less than 15 minutes to



1. Some of the tools I used to generate a Ford 10-Cut key in 15 minutes or less. Included are (1) Tension tool and Pick, (2) EEZ-Reader, (3) Blanks, (4) A-1 Pak-A-Punch or Curtis or Curtis 15, (5) Lubricant, and (6) Aero tryout keys.

make a working key, would you try it?

I'm going to show you how I make a working Ford 10-Cut key for the standard 10-Cut system in less than 15 minutes. In this system, tumblers 5 through 10 are found in the door lock, tumblers 1 through 6 are found in the ignition. Tumbler positions 5 and 6 are shared by the ignition and door lock.

First we will need some tools. Following is the list of tools I use: (See photograph 1.)

1. Tension tool and diamond pick.

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2. Our trial vehicle, a 1992 Aerostar.



3. Opening the vehicle.

The Ford we are going to use for this purpose is a 1992 Aerostar. (See photograph 2.)

The first thing we have to do is open the van. For this, we will use a stiff double prong tension tool and a diamond pick. The tumblers contact the key on the bottom, so we will rake the lock at the 6 p.m. position. (See photograph 3.)

ELAPSED TIME: 45 SECONDS.

The next step is to determine what the cuts are in the door lock. An easy way to do this is either read the lock or to use a tool called an EEZ-Reader, sold by H.E. Mitchell Co. The EEZ-Reader is actually a mechanical means for reading the depth of each wafer in the lock, and with a little practice, can drastically reduce

the time necessary to generate a key.

To use, we slide the tool into the door lock. There is a cut-out in the tip to trap the tumbler and then you use the slide to measure the tumblers

depth. (See photograph 4.) This method is not just easy but also fast. While the reader is in the door lock, we can punch out a key. (See photograph 5.)

ELAPSED TIME: 4:45 MINUTES.

We now have determined the door cuts to be 135335, in positions 1 through 6. The common cuts are in positions 5 and 6. The common cuts being 35, we can now go to our set of Aero try-out keys for the ignition and pick out the box that is labeled with the common cuts of 35. (See photograph 6.) We grab that box and grab the lubricant. We squirt in a little spray lubricant to lubricate the ignition cylinder. We try the keys in the box, until we get one that turns in the ignition cylinder. The key that turns in our ignition is stamped with "E3." (See photograph 7.)

ELAPSED TIME: 8:45 MINUTES.

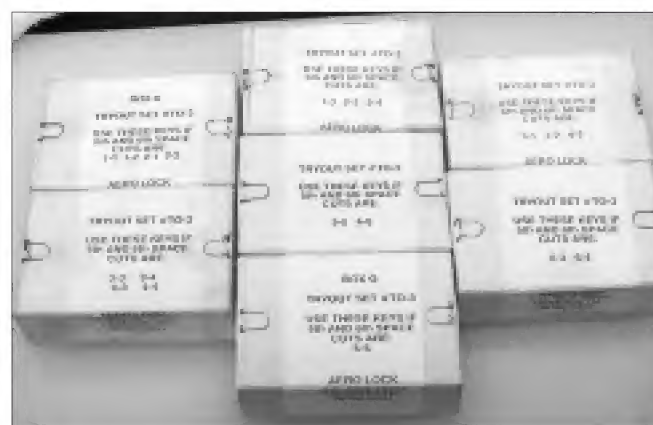


5. Cutting the door key.



4. Using the EEZ-Reader to determine the cuts for the door.

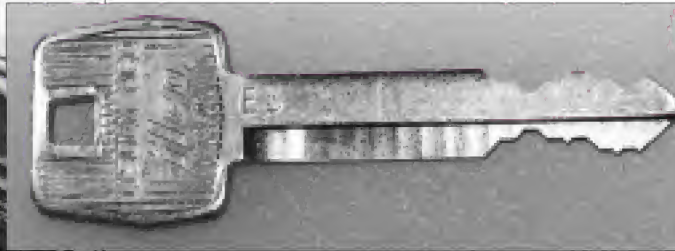
2. H.E. Mitchell's EEZ-Reader.
3. Two keyblanks.
4. A hand held key cutter.
5. A can of spray lubricant.
6. A set of Aero try-out keys for the ignition only.



6. Now choose the correct tryout set.



7. The key for our vehicle is E3.



The key marked "E3" has a different set of cuts on each side. Since we know that on a standard Ford 10-Cut, the cuts that come in contact with key are on the top side of the cylinder, the side that worked for us is Side Two. We can now go to Aero's progression chart and look up the progression for key "E3, Side Two." (See photograph 8.) Looking at the chart we see there are five possible keys to try. We start to cut each progression. The second try did

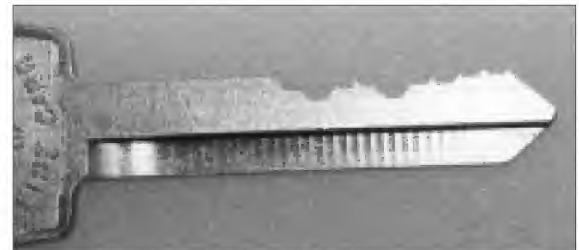
the trick, the final cuts that worked are 3322, positions 7 through 10. (See photograph 9.)

ELAPSED TIME: 11:45 MINUTES.

The final cuts for this van was 1353353322, bow to tip. Total time is 11 minutes and 45 seconds, including unlocking the van. We didn't pull the door panel, we didn't impression the locks and we did not damage any parts. Special thanks to Robert Johnston for his assistance

3, 4, 5, 6, 7, 8, 9, 10 PROGRESSION CHART			
KEY	SIDE 1	SIDE 2	KEY
3 2 3	3 5 3 1 3 5	3 5 3 3 1 1	
4 2 4	3 5 3 2 4 5	3 5 3 3 2 2	
3 1 3	3 5 4 2 3 5	3 5 3 4 2 1	
3 4 4	4 5 4 2 4 5	3 5 4 3 1 2	
4 2 3		3 5 4 3 2 1	
5 1 5		3 5 4 4 2 2	
3 2 4		4 5 3 3 1 2	
4 2 5		4 5 3 3 2 1	
3 2 3		4 5 3 4 2 2	
4 2 4		4 5 4 3 1 1	
		4 5 4 3 2 2	
		4 5 4 4 2 1	
3 3 3			
3 5 3	3 5 3 3 1 1	3 5 3 3 1 1	

8. We now follow the corresponding progression list from our list.



9. Our final cut key.

in this article. (All material used in this article were bought through locksmith distributors and purchased at regular selling prices.) **TL**



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ELECTRONIC SECURITY

Test Article #93

Markets, Demos and CCTV

by Charles Stephenson

If the old saying that a picture is worth a thousand words is true, then it must also be true that a demonstration is worth a thousand pictures. To effectively sell CCTV and build your business in this area of the security market you need a system set up in the show room and if at all possible another system to take to the prospect's property. But, what components should be included in an effective demonstration system?

Let's join the staff of Kentucky Lock & Safe (a.k.a. GROT the Loc Doc) as they both design and install a CCTV demonstration system at one of their locations in Lexington, Kentucky. This article will explain the logic behind choosing each component and describe the overall installation of the system.

For most locksmiths, the marketing strategy for introducing

CCTV is to target small businesses and the residential markets. In the context of this marketing plan, we define a small business as one that can utilize up to four cameras for the surveillance of its property. The residential market appears to be an emerging one with tremendous sales and revenue potential and an already established

running about the same price as the console TVs, stereos, camcorders or VCR's of a few years ago.

While CCTV for the commercial customer is typically overt, the home owner also has several reasons to use a security or surveillance system; viewing children at play, the swimming pool, an infant's room, the sick or elderly, blind areas around the home, and the general surveillance of the property.

For our demo the system design first called for a 12" black & white monitor offering one-way audio, a built-in switcher, and loop-through alarming for the VCR activation. This monitor best represents the line of monitors that best suits the needs of both market groups while still maintaining a reasonable

cost to the shop.

With the monitor chosen, we turn our focus to the cameras and their placement. The cameras and their mounting locations must provide an actual view of the areas of concern to most prospects. For this reason the first camera was mounted behind the



1. Mounting and adjusting the final camera.



2. This camera provides opportunity to show various lenses to the customer. The PIR in the background can be used for triggering VCR recording.



3. A full view of the show room from the camera's location.



4. Covert cameras can be disguised as radio speakers, thermostats, and, in this case, a PIR.

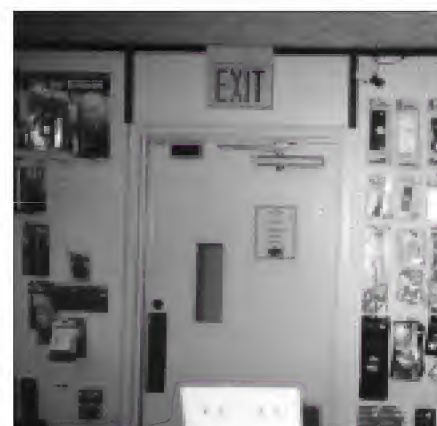
cash register in a location high enough to be aimed down at the subject area.

This camera provides a view of the person opening the cash register, the customer or intruder, and some surrounding area. The camera itself is a 1/3" CCD with a 4.3 mm lens and a .2 lux rating. After fastening the

camera mount to the wall, the camera is attached and positioned. (See photograph 1.)

Next, a 1/3" CCD camera that accepts a C-mount or CS-mount and auto-iris lens is installed. This camera has an electronic internal iris, accepts alarming inputs, has low light sensitivity of 0.2 lux, high resolution (425 lines), and uses only 3 watts of power consumption. (This same camera was also chosen for the outdoor location I will describe later.) With the mounting location on an end wall, this camera provides a view of the entire length (38') of the show room, and is chosen so that various lenses (25 mm and 16 mm) offering varying fields of view can be demonstrated to prospects. Photograph two shows the mounted camera. The motion detector nearby can be connected to the camera in order to alarm a VCR in the event of an intruder. Photograph three is a view of the camera's view of the show room.

The third and final show room camera is from the selection of covert cameras. A board camera with a 3.6mm pinhole lens, 1/3" CCD, and

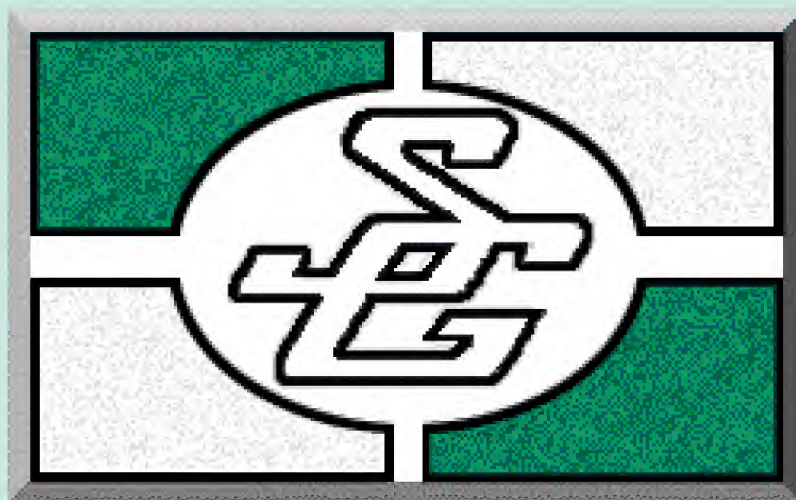


5. The covert installation easily covers the front door and the surrounding area.

380 lines of resolution and housed in a PIR case is mounted on a wall facing the entrance door. Photograph four shows how inconspicuous this component is. Photograph five is the view provided from this camera and includes peg board items and the front door to the show room.

The fourth and final camera is mounted outside to provide a view of the parking lot. (See photograph 6.) The location for the camera is under the eaves on the far corner of the

Continued on page 39



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Continued from page 37

building to provide the best possible angle for maximum coverage of the parking lot, some weather protection, and a high degree of inaccessibility to vandals. (See photograph 7.)

One point should be made at this point concerning weather protection; the camera requires an outdoor housing and due to weather extremes in Kentucky (heat and cold) both a blower and heater are necessary. The blower and heater require an independent power source of 24VDC40A, plus common 2 conductor 18AWG to 22AWG wire used to connect the accessories to the indoor transformer.

Photograph eight is a view of the camera, lens, camera housing, and outdoor housing with pre-installed heater and blower.

One accessory, a hold-up switch, was chosen to represent a variety of alarm devices which a prospective customer can select from. This simple and low cost item can be easily demonstrated and left near the monitor rather than mounting under the counter or near the cash register. The decision was made not to include a VCR in this system but rather present them from the catalog pages. This decision held the cost of the entire system in line with the start-up budget. A consideration that all locksmiths starting in CCTV must consider.

Doug Tierney, CML, installed this system, with my assistance. Being Tim's first system and trying to install the unit during the hectic business hours stretched a normally short installation into two days. Of course the beauty of installing a kit system is the reduction of the labor required for installation. Once the components and their mounting locations were

selected the process of the physical installation is simple.

First, prepare the component for mounting (mount the lens, assemble the housing etc.). Next, mount the component. Third, run the cable from the component to the monitor. And, finally, plug the cable into the monitor and cameras, then (and only then!) turn on the monitor. (Remember, in a kit system the camera receives its power from the monitor through the same multi-stranded cable used to send the image and alarm signals to the monitor.)

A job well done, Kentucky Lock & Safe is now ready to demonstrate their new CCTV to potential customers. (See photograph 9.)

For further information concerning a demonstration system for your business contact the author at Lockmasters, Inc. (606) 885-6041.

I want to thank Sean Horenstein for his invaluable assistance in preparing this article. **THL**



6. With a few added considerations (weather and vandalism) an exterior camera is mounted to cover the parking lot. Stored in a heated, weather resistant housing, the unit is placed high up under the eaves, out of the weather and harms way.



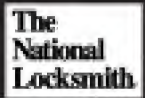
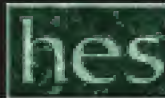
7. The parking lot as viewed by the camera.



8. Properly housing the exterior camera.



9. The men who made it happen. From left George Humlong, CML, Company Administrator, and Doug and Jack Cox, Purchasing Agents.



BEGINNER'S CORNER

A tale of The Multi-Lock Lock Bar

A Post Office union steward called, explaining that the union had purchased a three drawer file cabinet and now wanted a way to lock the drawers. He said at one time there was a lock on the file cabinet, but it had been removed.



by
Eugene Gentry

Due to past shootings at the post offices, managers are cautious and check closely for unidentified personnel who come into the work room. I made an appointment with the steward, who escorted me into the office room where the file cabinet was located. (See photograph 1.)

The brand name on the cabinet was Devon, and in the upper front right hand corner was a hole where the push lock used to be. The top drawer was removed, and I looked and felt for linkage that had been attached to the lock. All the linkage was missing.

I told the steward that I would check suppliers for a replacement lock and linkage, or if that was not available, I could install a bar lock that locks all three drawers.

The supplier informed me that a Hudson push lock would work in the file cabinet, but he couldn't get any of the linkage. He said also, that it was not worth the time or effort to install the linkage and showed me a three drawer Multi-Lock security bar. The unit cost \$25 wholesale and retails for \$36. A call to the steward gave me the go ahead to install the security bar.

This is a nice looking security bar; chrome, with a red bar interior. It is mounted on the left side, extending the length of the file cabinet, locking every drawer, and secured by a padlock. The bar is spring loaded so that it swings open. An upward motion of the inner red slide bar releases all lock points. A nice feature is that when the bar is open is does not obstruct any adjacent file cabinets. The Multi-Lock is available in one through five drawer sizes.

The Multi-Lock is easy to install. No instructions were in the package, but it is easy to see that it is mounted on the left side with the padlock at the top. (See photograph 2.)

To install, the bar is held in place and a pencil mark is made for the top hole. The hole is drilled, and the bar secured with a pop rivet. The bar is then lined up even along the side of the file cabinet and a bottom hole is drilled and riveted. With the bar secure, the rest of the holes on all three hinges were drilled and riveted.

Either screws or rivets can be used to install the Multi-Lock, although rivets are recommended as they do not work loose. The package I purchased contained sheet metal screws. After installing, the bar is tested for locking all the three drawers. I used a Master padlock to lock the bar. (See photograph 3.)

For more information on Multi-Lock call (800) 354-3284 and ask for the Multi-Lock contact. **TNL**



1. The file cabinet with missing lock.



2. The installed Multi-Lock file lock.



3. The Multi-Lock in the open position allows the file drawers to open without obstructing adjacent cabinets.

Cover
Feature



1. The new MRD ignition lock to be used starting with selected 1995-1/2 GM models.



2. New Ford ignition to be introduced on the 1996 Mercury Villager and Nissan Quest.

Several new vehicle locks, including an electro-magnetic ignition lock that is being made for GM and new ignition and door locks for Ford, will be introduced at the ALOA show by Strattec Security Corp.

The GM ignition system, called MRD (magnetic rotational device) during development by Strattec engineers, uses a small magnet in the head of a side-bar cylinder. (See photograph 1.)

A Hall-effect sensor, an electronic component sensitive to magnetism, is mounted on the case assembly. Within the sensor is a series of switch points. Three wires connect the sensor to the car's on-board computer.

When a correctly-cut key is inserted in the keyway, the cylinder will rotate. When the cylinder turns, the magnet registers on the switch points as it passes them. When the sensor is activated, it signals the on-board computer to allow the car to start.

A 10-minute delay after an unsuccessful start attempt is programmed into the system as a deterrent to theft. Also, any attempt to force-rotate the cylinder will damage the magnet, effectively immobilizing the vehicle.

The MRD will be marked as the GM Passlock when it is introduced on the 1995-1/2 model Chevy Cavalier Z-24 and Pontiac Sunfire. In 1996, the Passlock also will be used on the Buick Skylark, Pontiac's Grand Am and the Oldsmobile Achieva. (See Tom Mazzone's article on this system in the June 1995 *The National Locksmith*, page 11.)

The GM 10-cut key, introduced in 1994, is used with the Passlock. The system will be produced with 10 differently coded sensors. The key blank for the 1995-1/2 models is number 597500. Beginning with the 1996 models, the key blank will be shortened to the same length as the current 596222. Lock service packages that include a switch/ case assembly and a cylinder/ knob assembly are available from STRATTEC distributors. Package numbers will be available at ALOA. The pinning kit, number 702767, has been available from STRATTEC distributors for about a year.

Also coming for 1996...

The 1996 model year also brings new ignition and door locks for the Ford Taurus and Mercury Sable, the Ford F-Series pickups, and the Mercury Villager and Nissan Quest mini-vans. (See photographs 2 and 3.)

Locksmiths will appreciate the ease of servicing the locks. No special tools are required. The locks feature larger tumblers with a new "rock-in" design that allows them to be easily removed and reinstalled. The new designs of both the cylinder and the case have increased the resistance against forced rotation. The locks replace the conventional spring-loaded assembly with a snap-in style shutter and a detent feature for consumer convenience.

On the car and pickup doors, a snap-in style, handle-mounted lock is used. The lance cap is easily removed with a screwdriver. The 1996 F-Series pickups also will have a locking tailgate, a new development for pickups. On the Villager and Quest mini-vans, the door lock is sheet-metal mounted, and a service cap is available.

CATCHING THE WAVE:

Strattec introduces changes for the upcoming model year.



3. Ford's Passive Anti-Theft System incorporates an electronic receiver and transmitter in the head of the key, and will be an option on the 1996 Taurus and Sable.



4. The new Ford door locks with electronic switch installed.

easily mounted, care is needed to be sure that indicator lines on the lock and on the switch are aligned during assembly. (See photograph 4.)

All of the vehicles will feature a one-key system, although a valet key to operate the ignition and door is available. The locks use an "eight-cut" key with cuts of five different depths. There are 1,706 active codes.

The ignition lock will be used on the Taurus, Sable and F-Series pickups. The lock is the same on each, except for the size of the ignition knob. On the Taurus and Sable, the lock can be integrated into the Ford PATS ignition system. PATS (Passive Anti-Theft System) requires a key fitted with a transponder that sends a coded signal to the electronic control module of the vehicle. When the ECM recognizes the correct code, the vehicle is allowed to start.

As with the door and deck locks, no special tools are needed for servicing the ignition locks. The ignition lock uses seven plate-style tumblers and five depths in a "rock-in," side-bar design.

The key-minder switch has been improved for the new lock. The new switch rides on the side of the key, resulting in less wear and a longer operating life. The new switches can be used to replace those already in use. The lock turns on center and includes the detent feature for consumer convenience. The detent retaining ring has been replaced by a spring-loaded ball bearing. To avoid losing the bearing during assembly, cover the hole in the rear of the case with a finger.

Strattec will offer more details about these new products at the ALOA show, being held July 9 through 15 at Orlando, Fla. Strattec also will provide an overview from 8 to 11 a.m. Friday, July 14. Registrations for the session will be taken in advance through ALOA or at the show. **TRM**



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**1996 GM And
Ford Locks**

Cover
Feature

HONDA'S NEW SECURITY IGNITION



1. The new Honda ignition with the posted Torx security screw.



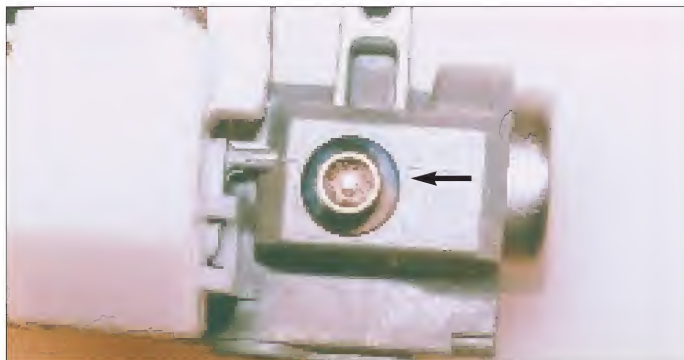
2. Remove the buzzer switch screw and buzzer switch.

by Michael Hyde

A funny thing happened to me at a local body shop that I do a lot of re-code work for. The body shop foreman is a friend of mine and always saves me the damaged and vandalized parts. He hands me the new part, the old part and the customer's key. I toss the old ignition assembly into a cardboard box and re-code the new lock.

The new lock in this case is an ignition cylinder for a 1993 Honda Del Sol, the original was damaged during a recent auto theft. Unlike the new part the original cylinder housing does not have the unexpected security feature on it - a posted security Torx retaining screw. This is a new superseded part, and it is unknown whether Honda will expand this change to all their ignitions.

I pull out the new ignition from the box it was shipped in and set it down on the workbench in my truck. (See photograph 1.)



3. Surprise, surprise, a T30 posted security Torx bolt!



4. After rotating the key to the ACCESSORY position, depress the active cylinder retainer.

To disassemble the lock for re-coding, first disconnect the buzzer switch by removing the Phillips head screw and gently slide the buzzer switch off the housing. (See photograph 2.)

I then turned the lock housing over and to my surprise was a T30 posted security Torx staring me in the face. (See photograph 3.)

I removed the security Torx, inserted the working key and rotated it to the ACCESSORY position. Then I depressed the active retainer to slide out the cylinder. (See photograph 4.) Before the cylinder would slide all the way out I had to lift up on the buzzer lever. (See photograph 5.)

This cylinder sure is a lot easier to re-code than its predecessor. The buzzer mechanism is not located in the cylinder anymore but is now located in the ignition housing. Before I could re-code the cylinder, I removed the retaining ring on the back of the cylinder plug. (See photograph 6.)

Next I gently pried up under the depressed tabs on the cylinder face-cap in order to loosen it up enough to slide it off. (See photograph 7.)

Once I had removed the cap, I inserted the working key and rotated the plug, in order to slide the plug out the front of the cylinder housing. (See photograph 8.)

The cylinder in its disassembled state is quite simple. You have the plug, housing, cap, and retainer ring. (See photograph 9.) The ignition cylinder contain eight tumblers. (See photograph 10.) The ASP Rekeying kit is A-19-100.



5. The cylinder slides most of the way out of the housing, but is stopped by the buzzer lever. Use a screw driver or other tool to pull the lever away from the cylinder to remove it completely.



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Continued from page 44



6. Remove the retaining ring on the back of the plug.



7. Three of these tabs retain the facecap to the lock. Pry up underneath them to release the facecap.



8. Insert the key, turn and remove the plug.



9. The lock cylinder and all its components.



10. The lock holds eight tumblers. Replacements are available from ASP pinning kit A-19-100.

TNL



WHEN CRIME AND CALLS DON'T PAY

by
Carl Cloud

S ometime during the 1930's, M r. Grah of Grah's Lock & Safe Co. in San Diego, California, was kidnapped. He was forced into a trunk of a car and driven across the border to Rosarita Beach, Mexico. This small beach town, twenty miles below the border, was a gamblers paradise. Casinos and gambling halls lined the streets. Rows of luxury yachts were tied up at the docks. It was well known the M afia controlled not only the gambling, but everything in the town.

As the story was told, M r. Grah was forced to open a safe. He was gagged, tied and left at the scene unhurt. Every experienced safe technician has had thoughts of his knowledge or ability being forcibly used to commit a criminal act. We have all had phone calls that didn't sound right. The caller just didn't have the right answers to your question or his story didn't have a ring of truth. After hanging up the phone, you've thought, "That guy was up to no good and he was trying to use me." Often it's a test to see if they can talk you into opening and making keys for a car or house, or even crack a safe.

The media, by using a sting, has proven that some in our trade can be readily called upon to perform unlawful acts. Those who don't follow procedures for verifying ownership of possessions can find themselves in a legal confrontation. The result of a slipshod operation by the locksmith or safe technician is committed by the locksmith's/ safe technician's own actions. When someone forces you to commit a crime, as in the case of M r. Grah, then it becomes a little scary.

I felt I had constructed a shield between me and the criminal element. I am well known by the trade in my area and many of my safe calls are referrals from other safe companies and locksmiths. For the previous eight years, my



**What would you do
if forced to use your skills
against your will?**

service operation has been mobile. I no longer have a shop or showroom displaying safes. M y service truck is not lettered. I don't want to attract those who might be inclined to burglarize it for the special tools it may store; Or, to indicate the living quarters of the man who owns a "Safe Company" truck.

M y telephone ad in the yellow pages does not list an address. M y name is unlisted in the white pages. All of my mail is sent to a post office box. Phone calls may be screened by an answering machine or voice mail. Jobs are selective and certain areas of the city are not serviced. I don't like to think of myself as paranoid, but I am cautious.

It was late afternoon. I was doing some paper work at my desk when the phone rang. I picked up the telephone and the following conversation took place.

"Mobster" illustration by Edgar Shindelar.

July 1995 • 47

San Diego Safe, Carl

I need to have a vault opened.

O.K., What's the brand of vault?

I don't know what brand. It's the kind used in First Interstate banks.

A bank vault What's the problem? Why can't you open it?

Look, we've got a bank vault to open and we want you to open it. There can be some big money in this for you.

Is this some kind of joke? Who is this?

I'm "Chipper." This is no joke. We're going to hit this bank and we need you to open the vault.

You have gotten the wrong guy. This is not my bag.

Hey, we've got this all figured out. We can go to jail for a long time if we get caught. Nothing can go wrong. How much do you make a year, a hundred grand? You can make this much just for one job. You open the vault collect your money and you are out of there. You'll never see us again.

No thanks. Our ethics are a little higher than this.

All you do is just sit in the car. We'll tie up everybody and you just come in and do your job. No one will see you. We'd get you a ski mask or a fake mustache or something. We have been working on this for a long time. Nothing can go wrong! We have the car already stashed. It's an 'Escondero.' (?)

It's a what?

An Escondero! (?)

This bank is in San Diego?

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Why are you hitting a bank when the vault is locked?

We don't want anybody getting hurt — no shooting or nothing. That's not what we do.

You're going to do this in broad day light?

No! No.

You are asking me to commit a crime. I won't be any part of it.

Hey, it's just a job. Like any other job. Your job is to open the vault. And you get paid really good. If this is too big for right now, how about us bringing a safe to you to open? It will be worth two grand to you. You just open it and you get the money.

Chipper, I don't think so.

Did you just call me a black name?

Your name is Chipper isn't it? I just said, Chipper, I don't think so.

I don't like people calling me black names!

I don't know if you are black or white — it doesn't matter.

You got anybody else there that would like to make some money?

None of my employees would do anything like this.

We've got a little over two weeks. I want you to think about it. I'm going to call you later. Hang on, this guy wants to talk to you.

NEW VOICE

Who is this?

This is Carl.

We have put a lot of work into this job. "Al" from Chicago is going to be here in a couple of days, and he's going to be very upset if you don't help us. We have let you in on what we are going to do and I think you had better work with us. We know who you are and where to find you

Look, I don't want any part of this.

We may have to come over and break both of your f_king legs! Believe me, that's going to hurt!

The caller hung up.

When this conversation began, I thought it was someone just kidding around. As it progressed, I began to feel this person was serious. Still not sure, I pressed the two-way record button on my answering machine. If this turned out to be an actual proposal, I would have it on tape.

The caller sounded young, late teens or early twenties. He was pleasant but very persistent. Later, he sounded a little irritated because I wasn't accepting any of his terms. Thinking that the conversation was being recorded, I went along with the dialogue rather than just hanging up the phone. Much to my dismay, the machine did not record what was said. For some reason, the recording feature had quit recording.

At the conclusion of the telephone call, I jotted down the conversation as best as I could recall and phoned the police. The officer taking my call switched to a conference connection with the F.B.I. An agent listened to my telephone episode and said an agent from the Bank Robber division would be in contact with me shortly. No one ever called back.

surmised, the F.B.I. didn't think there was sufficient information to act upon. It would have been a little reassuring had they called back to advise of a course of action if there were a second call from Chipper and his leg breaking friend.

How or why the caller selected me, I don't know. Maybe they just picked a name out of the phone book yellow pages, or maybe they were referred by another shop. I called the major safe companies in my area and apparently I was the only one propositioned for the job. A status that really doesn't add to my esteem.

I would like to think of this call as a joke that got carried away. If it wasn't for the comments of the second caller, I could shrug it off. There is a twinge of apprehension from the call although the robbery plan of the bank was ridiculous. Who in their right mind would hit a bank when the vault is locked? There is the possibility of two combination locks needing opening, plus the time lock must be bypassed. Their plan is to tie up the bank employees, open the vault, take the money and leave. They obviously don't have a clue to the operations of a bank vault locking systems or alarms.


In their sociopathic minds, they are right and everyone else is stupid. They believe what they can take from society is rightfully theirs. You should be willing to cooperate in their justifiable crime. They are such nice guys, they'd even share a portion of the loot with you... Well, maybe.

I'd have to admit, I am scrutinizing people and evaluating my surroundings more carefully as I travel through my work day. A new secondary telephone recording device has been installed on my business phone line. We in California, do not have the Caller I.D. System to track down those unscrupulous callers. I do not recommend carrying a weapon. Although, I have had a concealed weapon permit for over 20 years. Rarely have I 'carried.' This episode, plus the disintegrating of our moral society has me reevaluating my thoughts for personal protection.

There is a scary part of being contacted by these uninformed people. Their education has been based upon "hear say" or James Bond type movies depicting unrealistic methods of vault entry. They think because you are a professional you can actually do these things. If they can force or control you, they envision these theatrical acts of entries being performed by you. When you cannot fulfill their expectations is when it can become very ugly.

Let's hope you are never approached to use your talents unlawfully. In the theater of your mind, there should be a rehearsed script, an automatic response. The best response is none at all. Simply hang up the phone. If the caller calls back, vehemently refuse to commit any criminal act. When the caller persists, advise him that all telephone calls are recorded and his call will be forwarded and reviewed by the police. In my case, there was no action taken by the law enforcement. Still, notification to the authorities should be reported of any criminal activities.

The time span mentioned by my caller has passed. I didn't receive a second phone call. The newspaper reported the capture of two young men fleeing from a recent bank robbery. Maybe these two were my callers. I hope so.

We are living in a world where terrorism is becoming a common tactic. Be alert - You may become an unwilling participant! 



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Cover
Feature

ALL-LOCKED UP!

I DIDN'T FIND A PICKUP TRUCK WITH A GUN RACK, NOR COMPLIMENTARY SKOAL ON THE PILLOW OF MY HOTEL BED. SO, WHAT DID I FIND IN SELMA, ALABAMA?

by Tom Seroogy

Now, expectations play a big part of one's first visit to any area of the country. Chicago conjures up images of Capone and mob operations, Hollywood - movie stars, the Dakotas - cowboys and indians, Hawaii - beaches, hula skirts and surf boards, New York - a Central Park mugging.

But how about someplace like Selma, Alabama, home of All-Lock Company Inc.?

This writer took the opportunity to visit All-Lock and, well, I have to admit, I wasn't quite sure what to expect. On first reflection I figured I'd find myself pulling up to All-Lock sitting in the bed of a dusty old pickup owned by the kin of Larry and his brothers Daryl and Daryl. For the duration of the ride I'd be stuck between a sleeping hound dog, a crate of chickens, a fermenting bucket of chum, the clanking jugs of a canvas covered moonshine delivery and the road kill we collected on the way from the airport. And instead of a mint on the hotel pillow, I was sure to find a complimentary pinch of Skoal. I could hardly wait.

Landing in Montgomery, the capital city of Alabama, quickly dispelled these images. Alabama, in its own right and way, lives in the 20th century. Although small, the airport is new and modern. And instead of a pickup truck with a gun rack in it, I was able to rent a late model Beretta for my 50 minute drive to Selma.

Of course, rivaling the advanced technological accomplishments of some of the world's largest cities, even renting the car became a feat. It seems that this non-credit card bearing writer couldn't get a rental car without a card. I guess you can't dodge progress. Plus, no complimentary Skoal from the hotel. So much for expectations.

The ride to All-Lock was filled with signs of spring, a big difference from the cold-gray milieu and black slush in Chicago. Rolling hills filled with grass and cattle, forests with trees draped by Spanish Moss, and blooming Azaleas lightened the way. It was fabulous.

Before long I was in Selma and ready to visit All-Lock.

1. All-Lock's Selma Plant 1, home of the Saturn OEM locksets.

History

All-Lock's history actually begins with General Automotive Specialty Co., Inc. of New Jersey. Established in 1933, General started out as a manufacturer of ignition switches and now produces a broad line of OEM and aftermarket switches, locks and keys for the marine, automotive and industrial markets.

With Corporate headquarters in New Jersey, other facilities include Matamoros, Mexico, where switches and other labor-intensive products are produced; and Selma, Alabama, where All-Lock, a wholly owned subsidiary, has two plants that produce the OEM and aftermarket automotive locks with which we are so familiar.

As locksmiths, we have a fetish for purchasing OEM products. As such, it should be noted that All-Lock has been producing and supplying OEM locks and keys to the automotive market for years, including many years with Ford. Today All-Lock supplies Saturn as well as Honda with OEM locks.

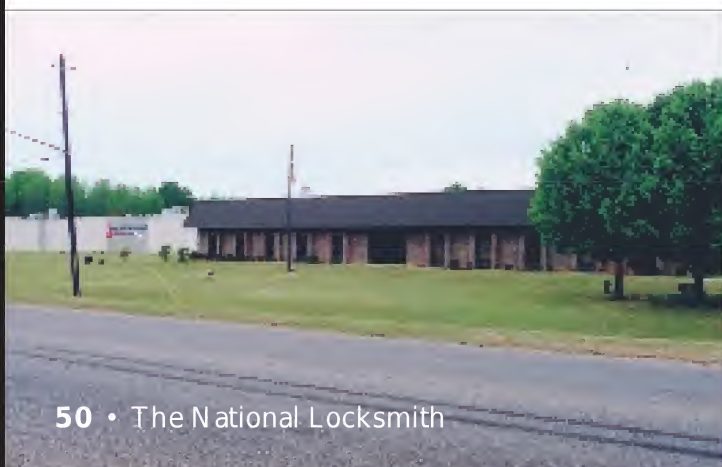
In fact, Honda and All-Lock teamed up in 1988 to form (you guessed it) Honda All-Lock. This company produces the locks for Honda of America, manufacturer of both the Accord and Civic here in the U.S.

On the other hand, for those without the OEM obsession, the aftermarket domestic and import auto locks (as well as cam locks and keys) sold to locksmiths come from the same equipment and assembly lines that produce the OEM products.

It should also be stated that Saturn and Honda are not the only OE lines produced by All-Lock. They are currently a major OE manufacturer for automotive and truck latches, as well as locks and switches for much of the automotive and marine industry, including Ford of Australia.

In fact, the next time you're out waterskiing, sleuthing for bass, jet skiing, or even changing the turn signal bulb on

2. Heading All-Lock operations is President Jesse Hermann (center), Vice President and General Manager James Gibbard (left), and National Sales Manager Russel Alsbrook.





3. In charge of Honda All-Lock is Yoshitomo "J osh" Ogata.



4. The employees are an integral part of quality. Pictured is the Honda ignition assembly lines.

your car take a close look at the switch or connector. Chances are good that it comes directly from All-Lock.

Quality

For all who wonder, any notion that All-Lock is a simple, laid back, good ole Alabama type of company is quickly squashed upon seeing and entering either Plant 1 or 2. In fact, aside from the tranquil, wooded environment in which they're planted, both operations would fit equally as well alongside the corporate giants of the Golden Corridor in Chicago's Northwest Suburban Schaumburg.

Like most manufacturing giants, All-Lock is very concerned about quality. In fact, this concern seems to be part of their underlying business philosophy with several elements of that philosophy transcending and evidenced in the day to day operations.

The most obvious of these is the participation of the employees (or associates as Honda All-Lock refers to them) in matters concerning quality and procedure. Smashing stereotypical standards for operating a company (i.e. the owner/ manager, engineer, hourly employee hierarchy), employees are responsible for quality on several levels. On the assembly line, each employee is responsible for making sure all previous or prior assembly is correct. In essence, each person becomes a quality control checkpoint,

maintaining a vigilante eye on each of the previous points of assembly. By the time a Honda ignition has been assembled and packaged, for example, it will have passed not only 14 to 19 assemblers, but 14 to 19 associates who carefully inspect and test for operation and performance.

Aside from simply checking assembled components, employees also join in developing the most efficient assembly process possible. For engineers and management, the employees direct involvement in production and assembly become the eyes and ears for making fast, effective changes in product and procedure.

Employees aren't the whole story, however. Machines and equipment are constantly upgraded and replaced by faster more precise technologies. A guided tour of Plant 2 (All-Lock and Honda All-Lock) by National Sales Manager Rusty Alsbrook and Honda All-Lock Plant Manager J. Roger Tinsley, for example, revealed several high tech, computer operated machines. Included are Honda door lock assembly machines that would put any locksmith to shame, flawlessly installing springs, tumblers, plugs and facecaps faster than the process can be observed.

At Plant 1 new, single mold diecast machines are taking the place of the older multi-piece molds. I questioned Alsbrook on reasons for exchanging units that produce several pieces of product at a time with units that produce



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information](#)

ASP Covers the World of Auto Locks



6. Here, J. Roger Tinsley accepts the Honda Plant Award for Outstanding Quality Improvement from Steve Yoder of Honda of America.

locksmiths hold a special place at All-Lock that the other markets can't and don't have.

"The locksmith is not just selling a lock when he services a customer. He's selling his service, himself," Hermann continued, "When he's out on the job and he has our lock in his hand, his success and reputation are based on his ability to service his customer while using our lock. Our reputation is predicated on the locksmith trusting in our product.

"It's not that way with the other markets. There's rarely any direct contact between the distributor, the product and its installation," he said.

"Also, unlike the other markets, we hear directly from the locksmith; what went right, what when wrong, what fit, what didn't.

"Having this direct contact and feedback makes the locksmith very important in our eyes." He concluded.

I questioned: "With the product you have, why not add a punch machine, some code books and sell directly to auto dealers?"

"The locksmith is our market," said Hermann, "we make products so the locksmith can service the auto dealer."

"Besides," added Alsbrook, "Most parts personnel and mechanics aren't able to service or assemble locks correctly, and most don't want to. The locksmith is trained and experienced at servicing locks. That's his job.

"If dealers want it done right, let the locksmith do it," he said.

Of course, providing locksmiths with the locks and lock components to service auto dealers is All-Lock's job. And while we're all familiar with their selection of domestic and import locks, probably the most significant are the Ford 10-Cut locks and service kits and the complete line of VATS keyblanks and service equipment. The Ford 10-Cut line comes with uncoded locks, allowing easy keying and matching of locks and keys. The recently released VATS keys along with new Interrogator allow key generation for both the single and double sided VATS using All-Lock product.

As a final comment on All-Lock's commitment to the locksmith, I was allowed to view a list of new products and

their startup and piece cost estimates that will be coming from All-Lock for the next several years. While all of them are profitable for us, there were a few that were definitely money losers for All-Lock. When questioned why All-Lock would produce products that lose money, Alsbrook responded.

"We're committed to providing the locksmith with the product they need to do the job," he said. "You can't look at only one thing. We just feel that if we take care of our customers, we'll be successful. It's worked for a lot of years."

TNL



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SHOWSTOPPERS

DOOR HARDWARE

ADAMS RITE 8100T/3100T EXIT DEVICES



Surface vertical rod exit devices have traditionally presented an aesthetic problem for architects coping with the bottom strike in carpet, marble, tile and other flooring. ADA concerns for wheelchair footrest clearance have recently added another difficulty.

Now listed by U.L. are the Adams Rite 8100T for life safety and 3100T with fire rating. The devices simply eliminate the bottom rod by using a pitbull top bolt and strike that interlock tenaciously to pass the various test loads, including the burn test for metal doors up to 90 minutes and wood doors up to 20 minutes.

A clean, uncluttered installation in a choice of 10 finishes on Aluminum, brass, bronze and stainless materials is offered.

Circle 379 on Rapid Reply

CORBIN RUSSWIN'S ED5000 EXIT DEVICE



Corbin Russwin Architectural Hardware introduces the ED5000 Series and ED4000 Series Premium Pushbar Exit Devices. The addition provides a complete package of panic and U.L. fire labeled exit devices.

Designed for applications in high use and high abuse situations, the ED5000 Series device can be teamed with a variety of Corbin Russwin trims to provide desired functions, styles, and finishes in new commercial construction as well as renovations. The ED4000 Series is the aesthetic companion to the ED5000 Series and is primarily for use on narrow stile full glass doors. Both devices are constructed of heavy duty components and are certified ANSI Grade 1.

Circle 380 on Rapid Reply

NT MONARCH'S EXIT DEVICE TRIM

NT Monarch Hardware, A Newman Tonks company, offers the new Trident trim for its 19 Series exit device. A pull plate, the Trident is available as dummy or locking trim. Finishes include powder-coated aluminum and powder-coated dark bronze.



Circle 381 on Rapid Reply

THE COMPETITOR BY PDQ



PDQ Industries, Inc. introduces "The Competitor," the company's Standard Duty SK Series Grade 2 lockset. The Competitor key-in-lever lock was created using the same superior design concepts as those found in PDQ Industries' Spirit Series and includes heavy duty cast rose plate and lever spindles, built-in lever stops, independent of chassis, standard concealed surface screws, standard through chassis thru-bolting from inside mounting plate, and optional through the door thru-bolting.

Continued on page 58

Continued from page 56

Rose diameter same as Spirit. Will cover all existing cylindrical preps, including universal preps now offered.

Circle 382 on Rapid Reply

S. PARKER LEVERSETS



S. Parker's 7160 and 8160 Series Contractor Quality™ Cylindrical Leverlocks satisfy ADA requirements and meet federal, state and municipal requirements. The levers feature a full 5" handle for easy gripping. The independent spring mechanism allows the lock to be easily opened using just a fingertip. A completely reversible 1/2" throw, fire rated UL dead latch comes with every lever. For safety and security, a universal type button is provided on entry and privacy levers that can be locked and remain locked on the outside while always open from the inside.

Two independent spring mechanisms allow the levers to work independently. Includes a standard ANSI strike and a 6 pin, solid brass SC-1 Keyway cylinder keyed to 5. A

standard 2-3/4" backset comes with the lever or a 2-3/8" backset kit for residential use is also available. The entry outside key cylinder can be easily removed for cylinder rekeying by any locksmith.

Circle 383 on Rapid Reply

**ELECTRONIC
HARDWARE**

**FOLGER ADAM'S
SERIES 600 STRIKE**



Folger Adam Company announced the release of its Series 600 Electric Strikes. The Series 600 fits ANSI A115.1 prep with modification to the face of the frame. The Series 600 Electric Strikes are constructed to fit narrow 1-3/4" jambs of either hollow metal or aluminum tube, and offer horizontal adjustment to compensate for door position. Fail-safe or no-fail-safe models may be specified, as well as optional indication switches to monitor strike status and lock bolts.

The case, keeper, locking levers and all moving parts are constructed of stainless steel for durability. Standard faceplate finish is US32D. The new Series 600 Electric Strikes exceed UL Grade 1 strength, comply with UL 1034, Burglary Resistant Electric Locking Mechanisms and UL 10B, Fire Test of Door Assemblies Class A, 4 hour. Its four non-fail-safe models electrically release doors when subjected to 10 pounds of side load. are backed by a manufacturer's warranty of one year for mechanical and electrical parts.

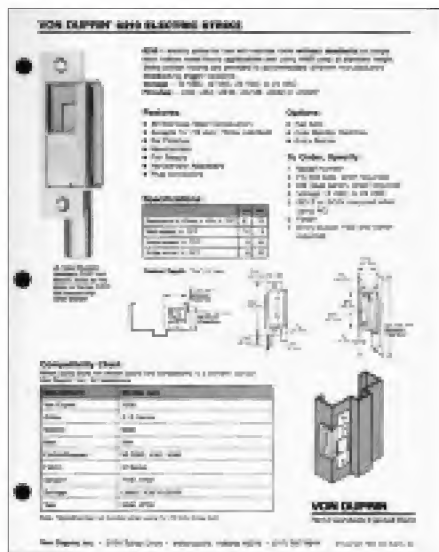
Circle 384 on Rapid Reply

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VON DUPRIN'S MORTISE LOCK STRIKE



Von Duprin, Inc. now offers the 6210 electric strike for use with mortise locks without deadbolts on single door, hollow metal frame applications that use an ANSI prep at standard height. It is supplied with strike pocket inserts to accommodate the deadlocking trigger locations of a variety of lock manufacturers.

The new electric strike features all-

stainless steel construction and is available in six finishes: US3, US4, US10, US10B, US32 and US32D. It is non-handed, horizontally adjustable, and accepts a 3/4" (19mm) throw latchbolt. The 6210 strike is a fail-secure unit and is available for 12 or 24-volt operation, in DC or AC versions.

Circle 385 on Rapid Reply

ELECTRONIC SECURITY

AeGIS 4000
BY PACH AND COMPANY



Pach and Company introduces the AeGIS 4000 Residential Telephone Access Control System. This new addition to the AeGIS family of access control devices has been created by combining the homeowners most desired features with the quality and reliability expected from the AeGIS product line.

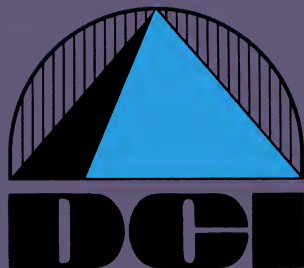
In addition to offering the "no-bill" feature, which utilizes the residents existing phone line for operation, the AeGIS 4000 is value packed with such essentials as: call waiting, call forwarding, 50 "easy-to-program" access codes, programmable talk time, programmable "door-open interval", and distinctive ringing - using a different tone to signal a "regular" call or a "visitor" call.

Circle 386 on Rapid Reply

SECURITRON LOCK CONTROL PANELS U.L. LISTED

Securitron Magalock Corporation announces that its Lock Control Panel (LCP) series is now a U.L. Listed option within its U.L. Listings for immediate (XP-1) and delayed egress systems (EXD-1).

Securitron designs the LCP to



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Exit Devices.

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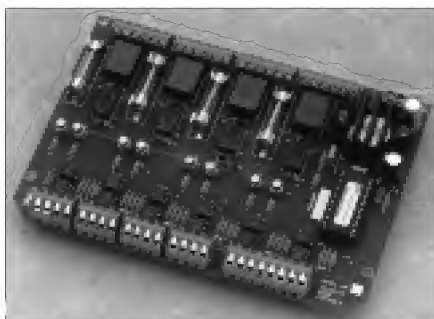


monitor and operate any 12 or 24 volt electric locks. Custom built in four zone increments, each zone of the LCP comes standard with a multi colored monitoring LED displaying four possible conditions of the lock and control switches with lighted manual release indicators. Each LCP is supplied with audible alarm and reset. Additional features including keyswitch control, additional monitoring lights, audible alarm silence latch and emergency release are available to adapt to any requirements.

The LCP series is available in a desk mount, wall mount, flush wall mount or rack mount versions and carries a two-year warranty and is backed by toll-free factory support.

Circle 387 on Rapid Reply

SECURITY DOOR CONTROLS' UR4 CONTROL MODULE



The security industry's first multi-functional, factory programmable UR4 Universal Door Control Module, designed to meet virtually any access control or door locking interface for up to four doors, has been introduced by Security Door Controls (SDC).

Standard programs simplify ordering of common applications such as: Communicating Bathrooms; Multi-door Mantraps; Airport Gate Control; and Cash Room Interlocks.

A standard UR4 module can accommodate one to four doors. The module may be cascaded for larger systems.

Overall system costs are lowered. The high tech UR4 makes installation

quick and simple, reduces system components, and provides a central point for wire connections and trouble shooting.

Circle 388 on Rapid Reply

SENTEX'S HORIZON M SERIES DIRECTORY



Sentex's Horizon "M" series has a sleek, sculpted design which makes this easily the most attractive system available for multi-resident buildings. The all metal, weatherproof construction - including a black metal keypad - makes the Horizon "M" tough as well as beautiful. This system combines all the basic telephone and code entry functions found in Sentex's popular Vista systems with a large two line, high-contrast LCD electronic

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directory (and an internal modem) at a price that is truly affordable for buildings of any size.

Circle 389 on Rapid Reply

TELULAR-ADCOR'S TELGUARD® CATS

Telular-Adcor has redesigned it's



entire line of TELGUARD® Cellular Alarm Transmission Systems ("CATS") for transmitting alarm signals over the standard cellular network in the event the wired Telco line is compromised. Each TELGUARD® model has received enhanced features such as PowerSaver which extends standby battery time. Plus, programming can now be accomplished with a standard

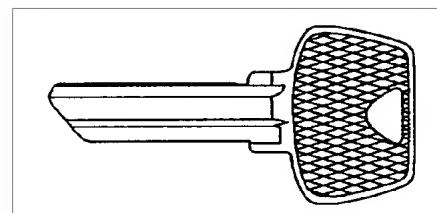
lineman's Test Set, which means installations are quicker and easier because a cellular handset is no longer required! In addition, TELGUARD® now has two methods of dialing the central station receiver. First, using the TELGUARD® patented "dial-through" technique, the telephone number dialed by the control panel is dialed by the TELGUARD® on the cellular network. Now, TELGUARD® can store a set of alternate telephone numbers that are dialed in order to accommodate cellular on-board signal strength indication. Each TELGUARD® has an array of LEDs which provide a positive visual indication of cellular signal strength.

Circle 390 on Rapid Reply

KEYS & KEY MACHINES

NEW BLANKS FROM JET

Twenty-two new key blanks have been added to the SILVER LINE. Now



available for immediate delivery is Sargent's "R" series, Best's 1A1TE1-NS, Yale's 11SH-NS and five of the most popular LeFebure's safe deposit blanks. The SILVER LINE, designed and engineered to exceed the most exacting standards of the industry are rated the ULTIMATE by Master Locksmith throughout the North American Continent.

JET offers the largest selection of key blanks in North America designed to simulate the look of original manufacturers key blanks. More than 150 commercial, industrial and safe deposit keys are now offered in Jet's SILVER LINE. They are manufactured from the finest nickel silver material available and polished like fine jewelry. A number of the series is also available in brass, milled in the same precise manner and are offered nickel plated.

Circle 391 on Rapid Reply

NATIONAL AUTO LOCK SERVICE, INC.

National Auto Lock Service, Inc. offers a wide range of equipment and services for the Automotive Locksmith. From tools and hard to find key blanks to transponder programming, we can take the mystery out of car service. We accept credit card orders, and can ship COD. Contact us for the latest in automotive technology.

www.laserkey.com

FRAMON SIDEWINDER INCLUDES 50 HIGH SECURITY KEY BLANKS

Locksmiths entering the high-security automotive key field will be interested in Framon's high security keyblanks.

The assortment includes keys for Mercedes 2 and 4 Track, BMW, Infiniti, Lexus, Saab, and others. Also included are four cutters with each machine (two 5/32" carbide and two 3/32" cobalt).

Circle 392 on Rapid Reply

NUMBERALL KEY MARKER



A line of specialized key marking equipment is being featured by Numberall Stamp & Tool Co. Inc.

The equipment ranges from the economical Model 23 Typeholder to the Model 137 motorized bench marking press. Included is the Model 40B which features a large easy to read dial and a carriage table which automatically advances after each impression.

Custom made key nest which fit into the presses simplify the marking operation even more. Simply drop the key into the nest and make the impression. Every key is marked in exactly the same place.

Circle 393 on Rapid Reply

SILCA'S NEW CATALOG 405

Silca Keys USA, Inc., Twinsburg, OH announces the release of their catalog 405.

This catalog consists of almost 200 pages of information about companies lines of key machines, key machine accessories, key blanks, and cross reference lists.



Circle 394 on Rapid Reply

PADLOCKS & SPECIALTY LOCKS

ABUS GRANIT® PADLOCK SERIES



Abus Lock U.S.A. introduces the Abus 36 and 37 GRANIT® padlock.

The GRANIT is the only padlock available in the United States to have been endorsed as a Class 3 security device (high security) by the Swedish Theft Prevention Association (SSF).

The padlock, crafted from specially core hardened steel alloy, is manufactured to exacting tolerances on the latest high-tech computer controlled machinery. It features a core hardened, double-bolted shackle secured by ball bearings. The 36 GRANIT padlock contains a 5-pin, rekeyable cylinder with keyway guard. The 37 GRANIT padlock is locked with the Abus-Plus 7-Disc cylinder. The Abus-Plus 7-Disc cylinder features 250,000 key options and a core hardened steel ring with dust cover, protecting the lock from attack by power drills.

The GRANIT padlock, tensile strength tested to over 17,000 pounds,

is bolt cutter resistant, Freon® attack proof up to -40 degrees F and virtually pick proof.

Circle 399 on Rapid Reply

LORI LOCK CYLINDERS



Lori Lock has long been known as one of the industry's leading suppliers of OEM and replacement cylinders, so it was no surprise when Master Lock contacted Lori to supply cylinders for their new ProSeries® Padlocks.

Master Lock specifically recommends the Lori #1599 and #2800 removable core cylinders for use in the new ProSeries® Padlock line. In addition, the #1539 is available in 29 keyways and also fits Schlage and Arrow locksets.

In addition to cylinders and deadlocks, Lori Lock also markets a new ADA Lever Conversion Kit that retrofits directly to existing Schlage "D" and Arrow "H" Heavy Duty Cylindrical Locksets.

Circle 400 on Rapid Reply

NATIONAL SAFE & LOCK CO. INC. EXPANDS LOCK LINE

National Safe & Lock Company Inc. announced the expansion of its lock line in conjunction with the finalization of the blister card packaging of its padlocks. Double locking laminated and brass padlocks are now available either KA or KD. All double locking laminated locks have an attractive bumper which enhances the lock. High quality stainless steel locks and "digital" locks are also available reflecting very competitive pricing.

Very attractive blister cards have been designed to enhance the marketing of the padlock line. The

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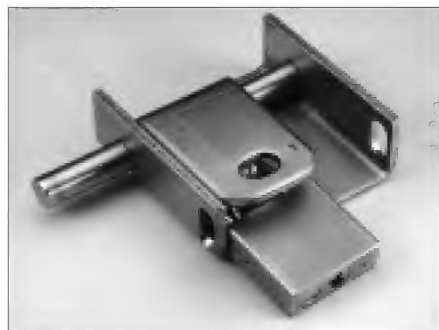
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cards are not only very striking to the eye but are also very defined and informative regarding the description of the particular padlock.

Display boards will also be available in the near future.

Circle 401 on Rapid Reply

**GARAGE BLOK
BY
MAJOR MANUFACTURING**



Major Manufacturing introduces a new locking bolt for use on garage doors or any door that requires a heavy duty bolt. Weighing over 2-1/4 pounds, the Garage Blok has a 3/16" steel housing with a 5/8" hardened steel locking bolt. A built in shield protects padlocks from bolt cutters or saws. The Garage Blok is available in right or left hand models and is supplied with four 5/16" carriage bolts for installation. Garage Blok is available from your locksmith distributor.

Circle 402 on Rapid Reply

**LATCHSHIELD
BY
MARKET FORCE
INTERNATIONAL**



Marketforce International has introduced the LatchShield—a new and patented high security strike plate that shields the latch from forced entry through the doorjamb—the most vulnerable part of the door.

Unlike ordinary strike plates offering no protection to the doorjamb and latch, LatchShield fits 1/4" into the doorstop molding and inside the latch hole to shield the entire front of the latch. It replaces the existing unguarded strike plate and works with all locks.

Circle 403 on Rapid Reply

**MAXFORT REPLACEMENT
KEY-IN-KNOB CYLINDERS**



Maxfort Corporation introduces its new CX98 series of replacement key-in-knob cylinders.

These cylinders are machined from solid bar stock brass and offered in all popular keyways and the two most popular finishes.

Maxfort CX948 series cylinders are designed with a capped-end to accommodate different tailpieces and better hold. A multiple tailpiece package is provided to fit all popular key-in-knobs, key-in-levers and deadbolts in the market.

Maxfort offers the best alternative replacement for your cylinder requirements available in the market today. Industry standard design and competitive pricing makes us an excellent source for your need.

Circle 404 on Rapid Reply

**NATIONAL CABINET LOCK
FURNITURE LOCKS**

National Cabinet Lock has a wide selection of bolt and cam locks for use with office furniture. Lock configurations available include locks for left- or right-hand doors (including handle locks for lockers), front- or frame-mount drawer locks, side-mounted gang locks for multiple drawers in pedestals or cabinets, file



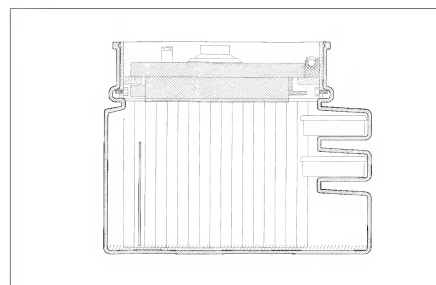
cabinet locks, surface-mount lid locks and plunger bolt sliding door locks. A removable core feature is also available in some products.

The National Cabinet Lock product line includes pin tumbler, disc tumbler and lever tumbler locks. Many of the most popular locks are included in the Stock Locks® ready-to-ship inventory program. National Cabinet Lock also offers custom lock design services where existing designs will not apply.

Circle 405 on Rapid Reply

**SAFES & SAFE
PRODUCTS**

**HAYMAN SAFE COMPANY
FS2300**



Introducing the FS-2300 as a smaller companion for the highly successful FS-4000 in-floor safe. Both have a molded polyethylene body featuring storage shelves, upright file holder, light weight and as much security as an all steel safe. Seepage, burglary, and fire guarantees apply to both. B or C rated doors interchange between these and Hayman's 20 other in-floor safes, without tools. Freight free in the continental U.S. Money back if not satisfied.

Circle 406 on Rapid Reply

Continued on page 66

Continued from page 64

DS SERIES SAFES BY KNIGHT



Knight Safe Mfg. introduces its "DS" Series of depository safes. The DS Series is designed for daytime protection of cash and deposits. Complete with oversized doors to accept cash trays, the DS Series is available in top-loading rotary, front-load and slot models. The DS Series from Knight Safe Mfg. offers quality and flexibility at an affordable price. All Knight Safes are made to exact specifications in the U.S.A.

Circle 407 on Rapid Reply

PALMER SECURITY PRODUCTS WALLSAFE



Palmer Security Products announces the addition of the Model #6000-A Wallsafe to its Pistopal line of security chests.

The 6000-A Wallsafe is capable of holding four average size handguns, jewelry, cash or other valuables and measures 14-3/8"x14-3/8"x3-3/4". It is constructed of heavy 12 and 14 gauge steel and includes one padded adjustable shelf. Holes on the side of the safe allow easy mounting between wall studs spaced 16" on center.

The locking mechanism features the Simplex mechanical pushbutton lock (2,200 combinations) and is fully recessed, keeping the face of the wallsafe completely flush, thus allowing concealment behind a painting or picture.

The door is reinforced and the hinge is hidden inside the safe, making it extremely resistant to physical attack. Beige powder coat

paint provides a durable and attractive finish.

Circle 408 on Rapid Reply

SARGENT & GREENLEAF LINE OF DIAL RINGS



Sargent & Greenleaf has developed two sets of Zytel® dial rings to be used in place of its standard zamac components. The new products offer the distinct benefit of being significantly less expensive while maintaining the unequaled standard of security that all S&G Products provide. Zytel, from DuPont, is a glass-filled polycarbonate that offers durability and reliability.

S&G's Spyproof® (R174 ring to be used with the D220 series) utilizes a top-reading dial, limiting the line of sight to the lock's combination. S&G's front-reading dial (R214 ring to be used with the D300 series) provides all the advantages of traditional dial rings.

Both sets of new dial rings are smaller and lighter components that don't require dial ring bushings and use the same mounting holes as standard S&G dial rings. Both are manufactured in a mat black finish.

Circle 409 on Rapid Reply

NEW PORTABLE LOCK'R FROM SENTRY



Sentry Group offers on the go security with the new Portable

Lock'R™, an innovative "mini locker" container designed specifically for people on the move.

The Portable Lock'R from Keep/Safe® Sentry was developed to meet the needs of today's active, outdoors and travel lifestyles. Consumers can tuck away a wallet, car keys, watch or other small personal items, then securely attach and lock the unit to any stationary object – such as a fence, car trunk hinge or bed frame.

Made of durable, high-impact molded plastic, the Portable Lock'R features concealed hinges that resist prying and a spring-loaded latch that ensures a tight closure. A Master Lock four-digit barrel security lock, featuring a user-settable combination, is built into the unit; and to secure it to a stationary object, the Portable Lock'R is equipped with a Master Lock multi-strand aircraft cable that resists cutting and offers a 1000-pound physical pull strength. The cable length is also adjustable, up to 15", for flexibility in usage.

Circle 410 on Rapid Reply

TOOLS AND ACCESSORIES

ARMOR SYSTEMS INVENTORY CONTROL FOR MOBILE TECHNICIANS

Armor Systems has released an update of the Armor Premier Accounting Software providing locksmith with constant control of Mobile Service and business activities, allowing him to reduce costs, increase productivity and maintain maximum cash flow.

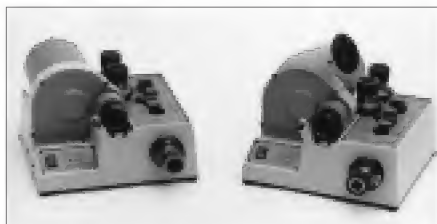
Armor Premier can be installed in desktop or laptop computers. Mobile Service Technicians are provided with a powerful tool to track physical inventory for each vehicle, either manually or with a hand-held scanner, and determine labor costs. Through the Point of Sale Module, the home office can create invoices and control payment terms, discounts, and pricing classes. Premier also has the ability to generate receipts for each product sold and any labor charges.

Circle 411 on Rapid Reply

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DAREX ULTRA PRECISION DRILL SHARPENERS



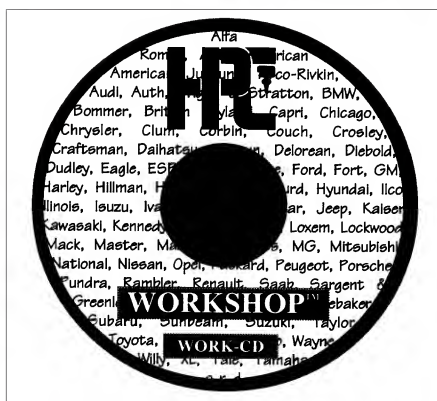
The Darex Corporation manufactures two "user-friendly" drill sharpeners, the SP 2000 and SP 2500 Ultra Precision Drill Sharpeners. The new SP 2000 and SP 2500 eliminate drill sharpening complications, adjustments, guesswork and hassles. Either machine can sharpen a drill in less than 30 seconds.

The new SP's offer a choice of Borazon or diamond grinding wheels. No wheel dressing is required. The enclosed design of these new SP models eliminates flying grit.

The SP's unique EZ Align System automatically aligns and adjusts the depth of the drill. All the operator needs to do is rotate the patented universal chuck in the sharpening port. In seconds, the drill is sharpened to a perfect 118° or 135° S-point or split point. The angle and point style depend on the SP model and options chosen.

Circle 412 on Rapid Reply

WORK-CD BY HPC



The wave of the future has arrived in the locksmithing industry.

HPC has now combined CD-ROM technology with its Workshop™ code management program. By simply inserting WORK-CD into your CD-ROM drive on your computer and installing the code retrieval program (which takes up only 20K) you are ready to look up any code with the touch of a finger! With WORK-CD you

run the program from your hard drive, but the codes stay on your compact disc. This saves room on your hard drive. There is no point in taking up space on your hard drive that could be better used to store other needed business information. 1 CD compared to 40 discs... which would you rather install?

Circle 413 on Rapid Reply

METAL MAGIC STEEL™



Works like putty but sticks like glue. Metal Magic Steel™ is a steel-filled epoxy which will adhere to damp surfaces, cure under water, and comes in a pre-mixed 4 ounce roll. Metal Magic Steel™ may be molded to any shape and then filed, drilled, painted, sawed, or tapped after the material is cured.

Circle 414 on Rapid Reply

TOOL PAK BY PAKTEK



Tool Vest by Paktek allows you to get rid of the old tool belt snags and spills and keeps you tools a heart beat away. Keep everything organized and close at hand with the Tool Pak Tool Vest.

Tool Vest features 14 easy access pockets, six Flap covered pockets, large rear pocket with both right and left access, zippered front closure for greater adjustability, fits easily over clothes, nylon mesh back and top for superior air circulation, and is made of highly visible red on black Dupont Cordura.

Circle 415 on Rapid Reply

NEW READING SLIDING TOP

Reading Body Works has added a new optional feature, the Sliding Top, to the Service Module available for the off-road Mitsubishi Mighty Mits



vehicles.

Available in lieu of the standard permanent top with rear vertical door, the Sliding Top offers a 14-1/2" high rear tailgate, and weathertight protection to the cargo bay. Running along full-length galvanized steel tracks, the Sliding Top opens and closes with ease, and the roof is held in an open and closed position with spring loaded latches, locking with a positive action dead-bolt lock.

Standard Reading features include the use of heavy gauge two-sided A-60 galvanized steel combined with Reading's exclusive Lectro-Life® immersion priming process which acts together as a critical aid in the fight against rust and corrosion.

Circle 416 on Rapid Reply

SLIDE LOCK'S 1995 GRAND MASTER Z-TOOL® SYSTEM



High performance automotive lockout system contains all locksmith quality tooling in stainless steel. Complete with hard shell carry case, night work, hands free head lamp and the recently released 1995 7th Edition System Manual by Slide Lock Tool Co. Complete set covers all model years from the 1950's right up to the newest showroom models.

Circle 417 on Rapid Reply

TRIPP LITE DATASHIELD

Tripp Lite introduces an entirely new line of DataShield surge suppressors designed to protect data lines for use with networked devices, data and communications equipment.



The new DataShield surge suppressors protect against transients caused by lightning, electrostatic discharge and group loops that can enter equipment from the signal lines or chassis ground.

This new DataShield line provides protection on the often overlooked cabling side of a network installation and when coupled with a Tripp Lite UPS or ISOBAR AC surge suppresser, provides the most complete protection available.

Comprised of 15 different models, the new DataShield line protects virtually any application including ethernet, token ring, AS 400/ Sys3x, RS 232, RS 422/ 423/ 485 and devices with modular coax and D-subminiature interfaces.

Circle 418 on Rapid Reply

MISCELLANEOUS

GARDEN STATE HARDWARE WHOLESALE CATALOG

The 1995 locksmith catalog is available from Garden State Hardware Wholesale. The catalog contains 560 pages of the latest products and pricing.

Circle 395 on Rapid Reply

ITI MARKETING AIDS



Interactive Technologies, Inc., (ITI) has introduced three marketing

aids that help dealers build a professional relationship with customers. Security Pro preprinted note cards make saying "Thank You" easy. "Thank You for Your Confidence" lets customers know you appreciate their referrals and reassures them that friends and associates will receive professional treatment. "Thank You for Listening" expresses your appreciation to prospects after a sales call. You can sign the card and mail it the day of your presentation. "Thank You for Choosing a Pro" expresses your appreciation after you close a sale. Distinctive matching Security Pro envelopes add style to the substance of your notecards. Available to all ITI Security Pro Dealers.

Circle 396 on Rapid Reply

PEPPER SPRAY PAGER BY PSC



Personal Safety Corporation, the manufacturer and marketer of Secure® Personal Safety Products, introduces Secure® Pepper Pager®, a powerful deterrent to personal attacks designed to look like a common pager.

The unique pager design disguises two canisters of 10 percent pepper gas. In addition, the consumer researched design features a built-in child resistant actuator button and safety switch.

Circle 397 on Rapid Reply

PEPPER SPRAY BY S.O.S.

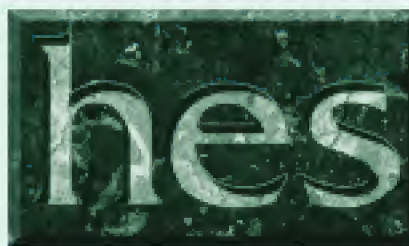


S.O.S. is proud to announce the introduction of two new exciting pepper spray units which offer consumers the highest quality state-of-the-art self defense.

Safe Key is the only hot pepper spray unit that cannot be taken from the potential victim and used on them. This powerful 5 percent hot pepper blast will disable an attacker but will not work if taken from the victim's hand. This is what many people have been waiting for.

The second is the revolutionary 10 percent Pepper Foam defense spray with ultraviolet dye that blindfolds attackers on impact. The 10 percent Pepper Foam is a thick, slimy, gooey, spray that has an effective range of 8' to 10'

Circle 398 on Rapid Reply **TNL**



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BUSINESS BRIEFS

News from the Locksmithing Industry

INDUSTRY INTERVIEW...

In our recent visit to All-Lock (see All-Lock visit on page 50), we took the time to interview Jessie J. Hermann, President and Chief Operating Officer of All-Lock.

TNL: Mr. Hermann, can you give us a little background on yourself and your beginnings with All-Lock?

A: All-Lock has been in the business of making locks for locksmiths for many, many, years. I have been with the company full-time for seven years. I learned early on that we consider the locksmith market to be important to our company. Long before I got here we conducted classes and began writing manuals to help locksmiths do their jobs better. I was pulled out of town during one of my first jobs with the company to go to an NLSA meeting to be sure that I met the customers and understood their concerns. The message to me was clear, even though I was at that time working in the switch division of the company, the locksmith and the locksmith distributors are important to our company. Understanding them and becoming better able to meet their needs will make us a better organization.

I became most heavily involved with manufacturing locks for locksmiths two years ago when I became president of the company and assumed responsibility for our manufacturing operations in Selma, Alabama.

Our company also has a switch division. I grew up carrying switches around the plant during summer vacations and on weekends. I went to work for a consulting firm after college in their manufacturing practice. I went to the Stanford Graduate School of Business to get an MBA and then went into manufacturing with a then fast growing computer company.

I rejoined our company in 1988 to work in the factory in our switch division. Manufacturing was done in New Jersey and Mexico. After a few years I went to work in Sales for our company and first began having regular contact with locksmith distributors. I was promoted to President and Chief Operating Officer of all divisions in the summer of 1993.

During my time at Stanford I had the opportunity to go to work for General Motors on an internship program. I worked there in the Marketing and Product Planning Group.

It should be noted that All-Lock is a family owned



Jessie J. Hermann
President of
General Automotive
Specialty Co., Inc.

company. My father ran our company before me, and his father and his uncle ran it before him. I believe that this gives us insight into our locksmith distributor customers which benefit from involvement by their owners, as well as locksmiths who tend to be entrepreneurs.

As a result, this is not just a job to us. We have much more at stake. I believe that this focus enables me to look beyond short-term. It also forces me to recognize the people who work for All-Lock as a major asset to be treated with respect. I often feel that one of the reasons we are able to beat out the competition and better serve our customers

is because everyone in the All-Lock family is so dedicated. They take pride in the company and what they do for it. They also like the fact that they see the owners on a regular basis and interact with them. They feel that they are much more than a cog in a machine that must react to Wall Street.

TNL: What is one of the most enjoyable and challenging aspects of this field?

A: The most enjoyable aspect of working in this industry is, hands down, working with such a confident and fun loving group of people. Locksmiths and locksmith distributors tend to be entrepreneurs who made it on their own. They are good businessmen and capable at their jobs.

As entrepreneurs, they are also people who understand what we at All-Lock do. We are not a nameless, faceless corporation. Locksmiths and locksmith distributors get to meet the people at All-Lock who make decisions.

The most challenging aspect of working in this industry is keeping up with the locksmith. I am always amazed at the locksmith's thirst for knowledge. I am also amazed at the things that locksmiths teach us. At every show we learn something new from at least one locksmith.

TNL: What changes have you seen in the industry?

A: We see an increasing recognition that the locksmith sells a service rather than a product. Locksmiths sell the comfort and convenience of having a lock repaired or replaced. We recognize that the product we sell is almost incidental to the locksmith. He is selling the fact that a car owner's problem is solved during the day, or late at night or on the weekend. As a result of this, we are rekindling our efforts to train locksmiths. Naturally we hope that this training will also encourage them to buy our products.

During our training sessions, we encourage review of our products. We are proud of our made in USA quality.

...INDUSTRY INTERVIEW (continued)

Also, the automotive lock industry is moving toward electronic security. The cost of this technology has finally come down to the point where it can realistically be included in cars. In addition to this, the car factories say that there will be a lot more standardization of parts. Of course, this would be a major program that would force a lot of designers to do the same thing. We'll just have to wait to see how it all works out.

The days are gone where we would just make what the original equipment companies asked us to. They now require us to do virtually all of their lock system engineering. We have had to keep up by increasing our development capabilities. Luckily, All-Lock has always considered its non-OE customers important and has thus had to have strong development capabilities long ago. We now design our parts in 3-D on the computer and develop prototypes overnight through computer controlled processes.

The changes in the automotive lock industry have caused lock

manufacturers to specialize. For the most part they are either in the aftermarket or a supplier to the car factories. All-Lock is unique in its focus on both markets. We dedicate different people from design to sales to each of the markets. We feel that by dedicating people in this way they are able to focus on the unique needs of their customer base. No shortcuts are required. These people get together several times each year to share experiences so that we can all benefit from what the others have learned.

TNL: And how do you feel these changes are going to affect the locksmith?

A: Locksmiths are going to have to continue to train and read and attend seminars to keep up with the trends. It will not be long before the security inside the car will rely almost totally on electronics.

The future is exciting for the locksmith. As cars become more complicated, regular mechanics will need to become more educated. They have always focused on the engine and the electrical switches of the car. Locksmiths will become increasingly

important as the experts able to service locks.

TNL: What do think the locksmith can do to better serve his customer?

A: Locksmiths can best serve their customers by recognizing that they are in a service business. Sure, they sell locks. And we like it when they do. But the locksmith's most important function is that he (or she) solves a problem for the customer. This means that locksmiths should focus on what the customer sees when he deals with him. The customer notices not only technical competence, but also cleanliness on the job and orderliness as well as professionalism in dealings.

TNL: Any final comments:

A: We certainly appreciate the business that locksmiths give to us. Our best advertising is when we can get our product into the hands of our customers.

And by the way, while we like to portray our folksy image, customers should feel confident that they are dealing with a company of over 900 people that operates out of 4 different plants. **TNL**

HPC is proud to announce the **4th** winner in their monthly Codemax™ drawing. **HPC** has awarded a Codemax™ computerized key machine to **Dennis Kasenchak** of **Suffolk Locksmith** in



Lindenhurst, New York on **June 1st**. It was purchased through **Accredited Lock & Supply** in **Secaucus, New Jersey**. **HPC** will be awarding a Codemax™ to a lucky locksmith every month through February 1996. To qualify, locksmiths simply need to purchase any 1200 Series Key Machine and send in their registration card along with a copy of their distributor invoice to **HPC**. Once

this is done, they will automatically be entered in the contest. Entries will remain eligible until the conclusion of the contest. A total of over \$47,000 will be awarded. There are still **eight** more chances to win.

Aero Lock is pleased to announce that one of its partners, **David Parrott**, has been selected for inclusion in the **Who's Who Among Leading American Executives**. Aero Lock, located in Memphis, Tennessee, is a manufacturer of tryout key sets and depth keys for locksmiths.



David Parrott

Indiana Cash Drawer Company (ICD) has promoted **Melinda C. Grady** to the newly created position of **Account Manager** for the west region.

Richardson Electronics has named **David Gaskill** as **Philadelphia District Manager** and **Bill Alexander** as **Southeast**

Regional Sales Manager. Mr. Gaskill will address all aspects of security distribution while specializing in system design and support. Mr. Alexander will specialize in CCTV and access control system design and support. The company has also added a full stocking location in San Antonio, Texas.

Master Lock Company's Grade 2 deadbolts have earned a **Best Value Home-Improvement Product Award** from **Home Mechanix** magazine. Master Lock deadbolts are one of only 50 products to receive the distinction this year.

Paul Kosakowski has been named **Vice President of Sales** for the **DORMA Group**. Kosakowski spent 24 years with the Emhart



Paul Kosakowski

Corporation and was a Vice President of Sales for its hardware division. From 1988 to 1991 he was Vice President of Sales and Marketing at DORMA Door Controls. **TNL**

LIGHTER SIDE

Ad-Ventures in Locksmithing

Lights dim. Conversation hushes. As the camera begins to roll, our actor assumes the pose of a dejected, masked burglar. "I've got to consider a career change," he complains to the viewers. "The wife says burglary just doesn't pay the bills any more, since A-1 Lock & Key has installed high-security locks all around Uvalde. I think I'll move back to San Antonio."



by
Sara Probasco

We have just been launched into the world of cable TV advertising.

Advertising is something we haven't done a whole lot of, over the years. When we first graduated from Don's totally mobile locksmith service into a full-line retail store, nine years ago, we ran a series of daily radio ads. These were tied to the highly popular early morning agri-weather report. Our ads humorously informed area citizens of our existence (we were new to town, then) and educated them about our products and the general merits of security.

However, that single radio campaign (which we continued for two years), an occasional ad or donation in support of one local organization or another, a few isolated newspaper notices regarding some special or new product we were promoting, and our usual yellow-pages listing constitute the sum of formal advertising we have projected, over the years.

Enter, area cable television advertising.

"Hey," Don said one evening, as he was zipping from one channel to another in a valiant (though unsuccessful) effort to avoid watching commercials between his three favorite TV shows. "That was an ad for

Joe's barber shop. How can he afford to advertise on TV?" Don zipped back a few channels, trying to recapture the ad, but it was gone.

Another local store's message filled the screen. "Herb's Body Shop?" Don questioned aloud. "Even at his prices, I wouldn't think he makes enough to be on national television. Besides, why would he want to? Nobody outside our area would care about his shade-tree business."

The screen changed; another thirty-second ad flashed across the screen, this one about one of our local florists.

"What's going on, here?" Don muttered, more to himself than to me.

"It's called advertising, dear," I replied from behind my book. "Commercials. You know, those horrid things you zap with your remote."

"Yeah, yeah. But when did all these local businesses start advertising on TV? More to the point, how can they afford it?"

"Maybe they know something we don't," I responded. Little did I realize, my comment constituted throwing down the gauntlet.

Nothing more was said about the matter, until I returned from a tour of the Far East, a couple of months later. When Don met me at the airport, one of the first things he said was, "There's an advertising person coming by the store on Monday to talk to us about TV cable advertising. I told her I didn't want to commit without your input, but it sure looks good to me."

We bit. The price was unbelievably reasonable, and we decided this was an up-beat means of informing the public that we had a lot more to offer them than just cutting keys and opening cars. Our contract included four thirty-second spots per day ("best time available"), seven days a week, for twelve months.

"A professional photographer will be coming up from Harlingen on Monday afternoon to shoot," the salesperson informed us, "so have all your brass displays polished and everything ship-shape. We should be able to get everything taped in a couple of hours."

A couple of hours! I assumed she was exaggerating to cover all eventualities. Ha!

The salesperson contacted our friend who had agreed to portray the frustrated, thwarted burglar (central to all our original ads) and confirmed the shooting schedule with him. By the time we were finished, it had taken over three hours, despite the fact there were few problems encountered.

The following morning we were to shoot ad number two, which involved our burglar teaching "Burglary 101" to a group of masked novices, instructing them in ways to avoid wasting their time trying to break into houses where A-1 Lock & Key had installed locks. That meant rounding up a half-dozen people to pretend to be burglars-in-training.

"Nothing to it," I assured the friends I contacted. "You don't have to say a word; just pretend to be attending a class. Just drop by our shop on your way to work, say around seven-thirty in the morning? I'll have coffee and doughnuts there for you. Your part shouldn't take but a few minutes to shoot."

Little did I know.

Four hours later, a tired bunch of former friends hurried away to their businesses amid promises that I'd treat them all to dinner and a private showing of the ad, when we received the pilot tape.

But the ads were great.

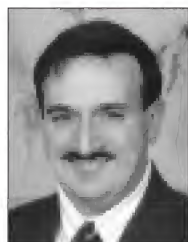
"Well, have you seen it, yet?" Don asked as he piled into bed a couple of weeks later, following a late-night service call.

Continued on page 179

ACCESS & INSTITUTIONS

State of the art access application is often necessary for institutional security.

When you hear the words "Access Control," what comes to mind? A single-door, stand-alone card access system? How about a multi-door system? How about a system that controls thousands of doors?



by
Steve Gebbia

If you could design an access system, what would it be capable of

doing? Think about it. Take it to the limit of your imagination, then go even farther. Make up a list of features to include in your dream system. How about this for a start:

- Virtually limitless capability for expansion.
- Fully customizable to the changing needs of your customer.
- Meets all Life-Safety, Fire, and Building Codes.
- Fully integrated CCTV, Access Control, Burglar and Fire Alarm systems.

- Customizable Audit Trails.
- Extremely user-friendly for your customers.
- Uses high-quality, top-of-the-line door hardware.
- Easily Serviced.

Stop dreaming. Your system-of-the-future is here now. You can see it in use in schools, colleges and other institutions across the country. Of course, not every college has a system this advanced, but the vast majority use electronic devices to meet the bulk of their security requirements.



1. Various devices can be used to control the operation of an access control device. Keypads (A) are probably the most common. Card readers (B) like this proximity reader is also used frequently. Used for activating CCTV as well as alarms, the PIR (C) is becoming more popular for the specialty applications of institutional security.



2. As its name implies, the proximity reader reads a card that is held within a short distance of the reader. The distance at which a card and reader can interact is variable and is dependent upon the application and the proximity hardware used.

Still, no matter how simple or how complex a system is, it contains many of the same types of electronic devices. All electronic access control systems contain hardware and software components. The software is the set of commands that tells the hardware what to do. In many smaller systems, this software is actually permanently programmed into the electronic components of the system. In other cases, the software is a computer program that is stored on the hard disk inside the main computer.

The hardware is actually made up of many different components. These will vary from system to system depending on how much control you are looking to obtain over a particular opening. They can be broken down into several categories of devices.

Door Controls

An electronic door control is a switch that controls another device such as an electronic lock or alarm system. These include keypads, card readers, passive infrared sensors (PIR), and pressure sensitive mats. (See photograph 1.)

Keypads are available from the fairly simple to rather complex. The simplest keypad controls a two position (on-off) switch. This could be used to turn an alarm on or off. For momentary contact operation of an electric strike or other electronic lock a timer relay is required. Some keypads have a timer circuit built in.

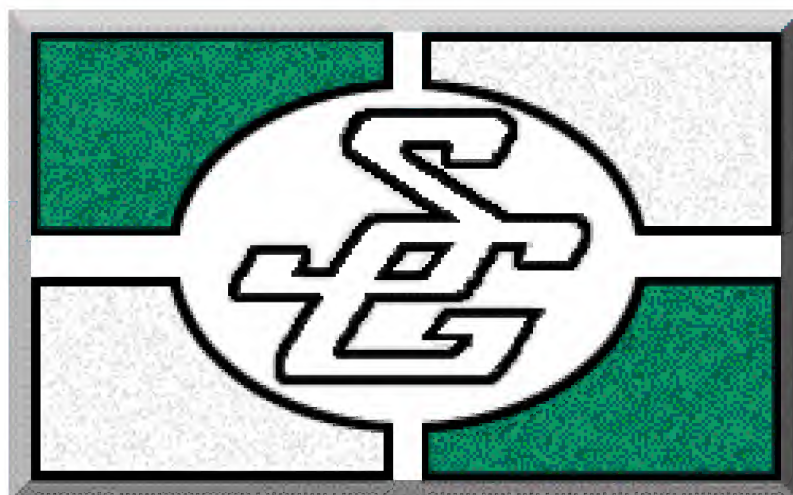
The IEI Door Gard series is a perfect example of an advanced, programmable keypad that is easy to install. This unit accepts up to 120 user codes, has an adjustable entry (unlock) delay, has field-selectable

voltage, and is fully keypad programmable. Additionally, one code can be programmed to toggle on or off an alarm or continuous duty lockset. This allows the customer the flexibility to leave a door unlocked during business hours (continuous duty), but require use of the proper code for after-hours entry (intermittent duty).

Card readers are available in a variety of configurations. One of the most popular styles for institutional applications is the Proximity Reader. Because the card is not 'swiped' through the device, there is virtually

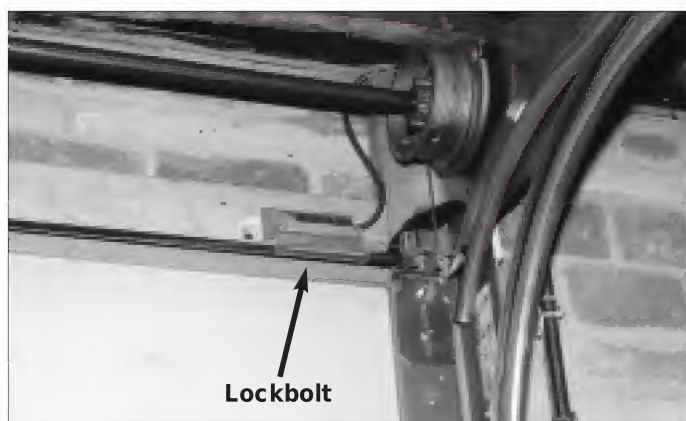
no wear caused by normal usage. This allows for extremely long life to the reader even in areas of very high traffic and abuse. (See photograph 2.)

Card readers are generally used to release an electric strike or electrified lockset, although there are other uses. It is becoming common practice to use a card reader to shunt an alarm contact on a door. By placing the reader on the inside of the door, authorized personnel may exit without tripping the alarm. Any other person passing through the door activates the alarm and campus security can respond.



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3. Contacts can be placed on doors in order to detect their status.

Passive Infrared Sensors (PIR) have been widely used in alarm systems for many years now. Institutional Locksmiths have found another use for them. Employing them to activate a CCTV camera to record activity near a doorway or to shunt alarm contacts to allow free egress from a secure area. To protect the lock mechanism on doors where large or heavy items are frequently moved, a PIR can be used to unlock the door.

Door Contacts

Magnetic contacts and other small switches are often used to monitor the position of a door and send a signal to the central computer. (See photograph 3.) Many electric strikes also have a latchbolt position switch as an option that signals the central computer that the latchbolt is properly engaged. Combined, these two switches tell the computer whether the door is closed

and locked. This is very important in an institutional setting. Without the latchbolt position switch, there is no way of knowing if the door is fully locked or not.

Electronic Locks

Heavy-Duty electric strikes are used extensively in institutional settings. Not only do they hold up to very high levels of

traffic, they are also available to fit a wide variety of locksets, and can be released by almost any type of door control.

For doors that require a device that withstands extremely high levels of use and abuse, an electrically-released exit device is the product of choice. (See photograph 4.) Because the latchbolt of the device itself is retracted, these units do not require special strike plates. They can be placed where many electric strikes do not fit.

Most of these, however, require a special power supply unit. This is because the initial power draw for the solenoid is high and then it steps down to conserve power. Anyone familiar with basic electrical wiring can install one of these power supply units. (Although a licensed electrician should make the final connection to AC power.)

Electro-magnetic locks are ideal for areas requiring high security locking. They typically have 1200 to 1700 pounds of holding force. These also require a power supply unit and an optional battery backup to assure that the lock remains locked in the event of a power failure. Many can also be easily integrated into existing fire alarm systems.

Another lock that withstands high levels of abuse is the electrically released lockset. These are available in both cylindrical and mortise configurations. Other than bringing the wiring to the lockset, there is usually little or no adaptation required when replacing existing hardware.

Closed Circuit Television

Closed circuit television (CCTV) is often used to monitor major entrances and high traffic areas in campus and



4. For areas of high use and abuse, electrically operated exit devices are a sure answer.



5. For recording activity, CCTV systems employ time-lapse recorders.

other institutional settings. There are several ways that these cameras are configured. The simplest setup ties the camera directly to a monitor in the central protection office. Here, a security guard can monitor activity on a bank of monitors. The camera can also be tied to a door position switch or latchbolt monitor switch. This activates the camera when the door is open or unlocked. By tying it together in this manner, this allows only doors with activity to be on-screen at any one time. A PIR can also be used to activate a CCTV camera.

Certain areas of the facility require constant monitoring of activity. For these areas, a time-lapse VCR is often used. (See photograph 5.) By recording at a slower speed, time-lapse recorders allow several hours of activity to be recorded on one tape. Be aware, however, that the more time that you record, the greater the chance there is of missed activity and the poorer the quality of the resulting image. A recording speed of three frames per second allows 24 hours activity to be recorded on a single



6. Covert cameras can be used for trouble areas. The hidden camera unit (below) can only be recognized by the lack of a solid square at the center of the cover's grid.



7. A complex integration of systems is achieved back at the control panel.

VHS tape. This is a happy medium, allowing a long recording time, an acceptable lapse in monitoring, and a quality, easily viewed image.

A time lapse VCR and hidden camera is excellent for covert monitoring of problem areas. Photograph six shows a standard fire

alarm sounder used throughout a private college. Below it is a hidden camera which closely resembles it. Which is which? Look at the center square. The camera has an opening here, the sounder doesn't. This unit is presently monitoring a computer room where recent thefts have occurred.

Larger facilities may have a need to record activity from several cameras at once. Because time-lapse VCR's are rather expensive, having a separate recorder for each camera is not always financially possible. Today, there is the multiplexer. This unit can record up to sixteen different cameras simultaneously with the use of only one time-lapse recorder. The images are digitized and sent to the VCR in a sorted order. The built-in motion sensing system lets the VCR record more frequently from those cameras with activity in their sensor range.

A multiplexer also feeds the images to a monitor. Because sixteen images on a small monitor can be very difficult to see, the screen can be configured to show almost any combination of images. By showing and recording only those cameras with activity, the multiplexer saves



8. The computer is the heart of Command Control, where control and observation of all the security is accomplished.

time and valuable tape space. After all, the only time a camera is needed is when there is activity.

Control Panel

The main control panel for a large access control system can get quite complicated. This is where all system wiring terminates. The system shown in this photo is in use at a mid-sized private college. This system presently controls 130 doors. With little or no modification, it can control up to 256 doors. There are systems available that control up to 40,000 doors! One advantage of a control panel such as this is that everything can be integrated into one system. By tying together door controls, locksets, cameras, and fire and burglar alarm systems into one system you can achieve total control over all security at the facility. (See photograph 7.)

Central Command

This is where it all comes together. The heart of the system is the personal computer. (See photograph 8.) Today's super fast computer chips allow very fast, efficient transfer of data. The software allows a great deal of information to be recorded, sorted and stored.

The primary tool for controlling security is the audit trail. An audit trail is a printout that can be configured to show exactly what you need to know. The activity report shows all activity for any or all doors for a particular time period. In an institutional setting,

Continued on page 179



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Mirror, Mirror On The Wall

Not a purist, Jake takes a stab at another money making proposition. One that'll always look him back in the face.



by Jake Jakubowski

A fella named Logan Pearsall Smith wrote, back in 1936, that: "All mirrors are magical mirrors...". Upon reflection, I wouldn't say that all mirrors are magical, but this ol' boy did find one mirror that turned into a cash cow! Now, before you begin to think I'm as mad as the hatter that Alice encountered when she stepped through the looking glass and into Lewis Carroll's Wonderland, hear me out!

I was going through a rekey one day for one of my regular customers, when I overheard the restaurant manager and his district supervisor discussing a "blind" spot near the cash register. The store manager said, "What we need is one of those curved mirrors so we can see the register from the kitchen and the dining room."

I do a lot of work for these folks in the course of a year and have the sort of reputation that if they need something different or unusual, they often call me and ask if I know anyone that can do that type of work, or if I have any suggestions that can solve their problem for them. Sure enough, I heard the area supervisor tell the manager to "Ask Jake about it, while he's here."

When Rick (the store manager)

asked me about the mirror, and whether I knew anyone who could put one in, and how much they were? I told him that I could get the mirror and install it for him, but I wasn't sure how much they cost. The upshot was I told Rick that I would check on prices when I got home and if he agreed with the price, I could order the mirror and have it installed in "a couple of days, or so."

Now, I want you to know that up to this point in my locksmithing career (In addition to all the normal stuff), I have hung doors, replaced hinges, repaired closers, installed security windows in freight doors, installed access systems, installed ADA required hardware on the door of the "prep" room in a mortuary (Don't ask, it's a long story), locked myself out of my van, and made keys for a Coke machine. But! I had never installed a security mirror.

If you're a purist, you might decry such a job as too radical and non-traditional for a locksmith and be squandering their talents on. If you're one of those folks that think a door is something to walk through and you should only install, repair or rekey the lock thereon, you might think, "Why waste your time?" But, if you're like me, you take on these types of jobs to

keep good, solid, regular customers just that - regular. And to shake more shekels from the shekel tree! Besides, Christie had been talking about new drapes for the living room and I thought a job like this might help pay for them.

At any rate, I called Bell Glass & Mirror in New York (they're listed in the December, 1994 Directory issue of *The National Locksmith* magazine) and requested information and prices on a convex security mirror. After asking me what distances were involved and other pertinent questions Bell's rep suggested a 36" diameter, convex mirror. It would cost me \$170 delivered.

I called Rick, gave him a price that included the mirror, its installation (plus, freight) and my service call. He asked: "How soon?" I told him I'd have the mirror on his wall in about three days. Rick said: "Go!"

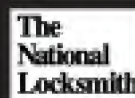
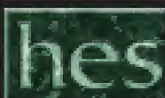
When the mirror arrived (it's made of plexiglass, by the way), I was not sure just how difficult it would be to install, so I asked my friend, Pete Gamble, to stop by and give me a hand in case it was too much for one person to do alone. We agreed on a time and met at the restaurant later that day.



1. The mirror's bracket is attached using four screws or bolts.



2. The mirror mounted to its bracket.



As ol' Gomer Pyle often said: "Surprise! Surprise! Surprise!" And was I surprised! Since the mirror is made of plexiglass, it only weighs a few pounds and can be handled by one person. Admittedly, after you get the bracket attached to the wall the mirror is little unwieldy for one person to attach to the bracket alone, but it can be done. (See photograph 1.)

Photograph two shows the mirror attached to the bracket, and photograph three shows two of the three screws that need to be loosened to adjust the mirror to the proper angle to give the best view of the area that your customer wants to watch. Photograph four gives you an idea of how the mirror "sees" around corners.

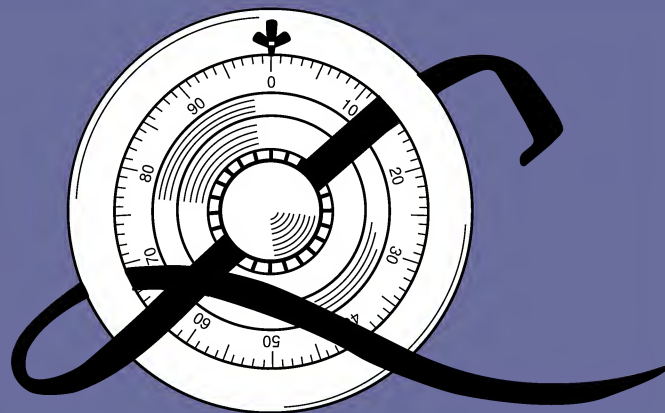
But the real surprise came in how little installation time was involved. Are you ready for this? Under thirty minutes!

And that's the first time out of the gate! You don't believe it? Believe it! From the time I took the mirror out of the box and held it against the wall so the store manager could decide where he wanted it placed - until the time he was signing my ticket, twenty-five minutes had elapsed!

Not counting my travel time to the job (Yeah, I know, that's a cost of doing business too!) I grossed \$4.20 a minute (!) for the installation, recovered my freight costs and received my normal service call fee. Not too shabby for a nontraditional service, and definitely not "a waste of time."

I'm the first to admit, that you probably could not do that well on every magic mirror job you sold. And, I'll concede you may only do one or two jobs like this a year. But! It's nice to know that if you keep your ears and your mind open as you approach your customer with the idea of giving them as much service as you can by giving them what they need, when they need it...you can pick up an extra buck or two from the most unlikely sources.

In a competitive market economy where we face the incursion of "non-traditional" service providers who are performing jobs that normally would fall to us, we need to take advantage of every trick we can. Car openings are being done by "non-locksmiths," and carpenters and handymen install deadbolts. Hardware stores offer rekeying services and lock sales. The list is long.



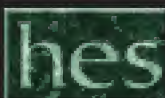
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3. These screws are loosened to allow mirror adjustment.

Sure, I agree that installing security mirrors is not a "traditional" locksmith service but it is a security service. And, we are, as locksmiths, an important part of the security industry. Since we already have our foot in the customer's door, so to speak, why not take advantage of every trick we can ...

even if we have to resort to "magic mirrors on the wall, to shake the shekel tree and make them fall."

In the February, 1993 issue of *The National Locksmith*, I wrote an article titled: "Don't Blame The Mirror!" In the last paragraph of that article, I wrote: "...if you have failed yourself today by neglecting to seize any viable



4. The mounted mirror.

opportunity you may have had. Then, when you get out of bed tomorrow morning, if you don't like what you see in the mirror ... don't blame the mirror!"

And folks, that's no fairy tale! Ya'll heah?

For more information, pricing and literature on security mirrors call Bell Glass and Mirror at (718) 633-4000. Or write to 894 Coney Island Ave., Brooklyn, NY 11218. **TNL**

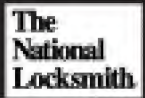
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BITS & PIECES

Informative Tidbits for the Security Industry

All-Lock just released their New 1995 AL4-95 Application Guide that includes a whole bunch of new products. Contact your All-Lock distributor for your copy.



by
Tom Seroogy

Also, for 1995 All-Lock will be introducing several new products including ignitions, door, and trunk locks for late model Chryslers, Hondas, Toyotas and Nissans.

Included in the bunch will be All-Lock's version of the GM double sided ignition and service kit, Ford 10-cut door locks and Taurus/Sable door face caps.

We'll let you know the minute they are ready for the go!

From the legislative front, the Allied Locksmiths For Illinois, a cooperative effort of the local locksmith associations of Illinois are nearing the longtime goal of statewide locksmith licensing.

This law, should it pass, may be the first statewide legislation written and sponsored by locksmiths in the U.S.

Currently identified as House Bill HB549, it just recently passed the Illinois State Senate Committee unanimously, and passed on the Senate floor in a 51 to 2 majority vote. Because a few amendments have been attached to the Bill since its passing in the House of Representatives, it will be passed back to the House for confirmation and then onto its final hurdle - Illinois State Governor Jim Edgar.

While opposition is not expected, at the time of this writing, the passing of the law is still considered tenuous and

all Illinois locksmiths have been advised to contact the Governor's office in support of the law.

STRATTEC is having a meeting at ALOA this year, to introduce some of their new products. Included will be the new GM MRD (Magnetic Rotating Device) ignition lock, used in GM's Passlock (VTD, Vehicle Theft Deterrent) equipped vehicles. Also to be shown is Ford's PATS (Passive Anti-Theft System), as well as other new products to hit our industry in late 1995 and 1996. Locksmiths must register in advance through ALOA or at the show. (See Tom Mazzone's article on the GM VTD on page 11 of our June 1995 issue. Plus, see the

introduction to these ignitions on page 42 of this issue.)

A-1 Security Mfg. has just introduced a new tool set for picking and removing the GM 10-Cut ignitions. Working well on both the 1994 module as well as the 1995 truck version of this system, this tool allows the locksmith to remove the ignition without drilling or destroying the lock and with minimal column disassembly. The kit includes the tools necessary for picking the lock, plus a tool for reaching and depressing the lock's retainer. For more information contact an A-1 distributor or A-1 at (804) 747-0095. **TNI**



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TECHNITIPS

Helpful hints from fellow locksmiths

Send in your
tips and win.

HOW TO ENTER

Simply send in your tip about how to do any aspect of locksmithing. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Write your tip down and send it to: **Jake Jakubowski, Technitips Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107** or send your tips via E-mail to the E-mail address posted in the upper right hand corner of this page. Remember, tips submitted to other industry publications will not be eligible. So get busy and send in your tips today. You may win cash or merchandise. At the end of the year, we choose winners for many major prizes. Wouldn't you like to be a prizewinner in 1995? Enter today! It's easier than you think.

BEST TIP OF THE MONTH

If your tip is chosen as the best tip of the month, not only do you win the All-Lock Foreign Auto Service Kits, but you also automatically qualify to win one of the many excellent year end prizes!

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Yes, every tip published wins a prize. If your tip is printed, you'll win \$25 in Locksmith Bucks. You can use these bucks to purchase any books or merchandise from *The National Locksmith*. Plus, every tip published will win a copy of the Technitip Handbook. (Please remember to include your complete mailing address - we cannot mail prizes to P.O. Boxes.)



by
Jake Jakubowski

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- Silca Rubberhead Keyblanks (100 Blanks)
- Pro-Lok PK15 Professional Lock Pick Set
- Sieveking Products EZ-Pull GM Wheel Puller
- A-1 Security Mfg. Quickpull
- Major Mfg. CAK Cylinder Access Kit

Submit your tip and win!

Ya'll heard that right! From July 9th through the 15th, ALOA '95 will be held at the Orange County Convention Center.

Even if you're not a member of ALOA, you should git on by the convention center for the trade show on the 13th, 14th and 15th! If y'all ain't never been to one of them trade shows, ya' jes' don' know what y'all's missin'.

So, lissen to this ol' boy and hie yerself on down to Orlando and check out ALOA's trade show. While you're visitin' the manufacturers and learnin' all sorts of new stuff, yer friends and kin folk will have a ball at Disney World, MGM, Epcot, Universal Studios, Wet 'N' Wild and a dozen other attractions! They's even a real alligator farm nearby!

An' jes' to sweeten the deal, y'all

come on by The National Locksmith booth an' look for me an' the rest of the gang, including Tom Seroogy and Marc Goldberg. We'll be thar waitin' to meet our favorite people - you - with plenty of sweet deals on books from some of yar favorite writers! Ya'll won't wanna miss the new 1995 AutoSmart and 1995 AutoSmart Update by Michael Hyde. It's loaded with all those cars that keep us scratchin ar noggins.

'Course don't be 'fraid to bring some a those Technitips. We're always lookin' for big'r 'n' bett'r, and we got a whole truck load of new prizes for ya'll this year. R'member, it only takes one tip to win!

So, there! Ya'll's got a chance to see a great trade show am and learn somethin' too! All ya' got to do is come on down to Orlando for a weekend of sun 'n' fun ... y'all heah?

All-Lock Foreign Auto Service Kit Winner

Pinning Light Fixture

I have found a very simple solution for the sometimes annoying and time consuming job of loading top pins and springs in lock cylinders.

Using a piece of scrap 2"x4" lumber 4" or 5" long, measure 2-3/4" from the end of the piece, along the center line,

and drill a 1/2" hole, 1" deep in the piece of 2"x4". (See illustration 1.)

In the end (or butt) of the board, drill another 1/2" hole at center line lengthwise through the board until it intersects with the first hole that you drilled.

Next, you need to obtain a length of new 1/2" fluorescent Lucite rod. This material can be purchased from your

local plastics supplier. The company I bought mine from had it in red, orange and green. Either color will work great!

Now cut a piece of the Lucite rod 2-3/4" long. A hacksaw will work just fine. File a notch in the top of the rod

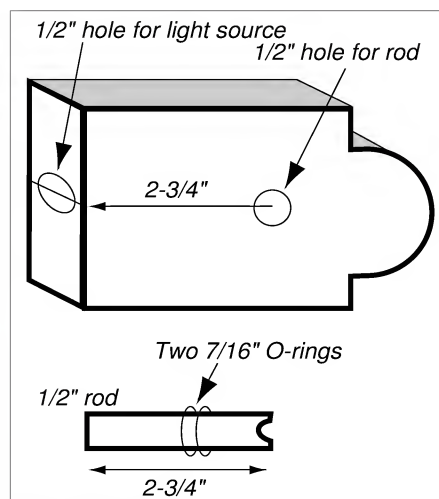


Illustration 1

to accommodate the spring and top pin. Glue the rod in the center hole with a glue gun or any plastic-to-wood

Obtain two 7/16" O-rings and place over the rod. You'll also need a MINI-MAG "Solitaire" flashlight. That's it! A simple tool for quickly loading top springs and pins! Here's how it works:

Insert the MINI-MAG (or a penlight, flex light, etc.) in the 1/2" hole in the end of the board. You may have to increase the size of your hole by about .005" if you use the MINI-MAG. Just "wallow" your 1/2" drill a little so that the light fits snugly but can be removed or inserted easily.

When you turn the light on and insert it in the end of the board, the light is transferred up the fluorescent tube and really lights up the inside of the cylinder. (See photograph 2.) During the day, you don't need the light. Why? Since the rod is fluorescent, daylight striking the rod from beneath the cylinder will travel up the Lucite rod and illuminate the inside of the cylinder enough to easily see the pin chambers!

Now, remove the plug from any lock cylinder, dump the top springs and pins and using the two O-rings to support the cylinder, place the cylinder over the Lucite rod, and bring the notch in the rod to the first top chamber to be pinned. Insert the

proper spring and pin then, push the cylinder down on the rod to the next chamber and repeat the process.

When you've finished loading all the chambers turn the cylinder 1/4 of a turn, place a properly pinned plug in position and slide the cylinder off the Lucite rod and onto the plug.

Or, you can turn the cylinder 1/4 turn and use a second follower to remove the cylinder from the Lucite rod and then insert the plug. Either way, the lighted rod and block



Photograph 2

arrangement makes top pinning much easier for me.

Dennis Harmon
Colorado

Editors Note: Dennis sent me one of his pinning blocks, and I want to tell y'all that I was truly impressed by it. I wear bifocals now, and it's harder for me to see down a cylinder to re-pin the top chambers. Dennis' tool made that job a snap! Photograph two is a view of the inside of a lock cylinder lighted by Dennis' tool. Y'all really should make one for your bench and van since this tool allows you to control the cylinder easily with one hand while loading the top chambers.

STRATTEC Pinning Kit And Jacket Winner **Car Opening Tool**

It seems that there are more and more car opening tools on the market every day. Often, you will find you need several different tools to open various models by the same manufacturer.

Illustration three shows a simple tool that I came up with, made from a piece of 1/4" rod about 30" long, that allows me to open most Ford and GM products simply and easily. Especially after some Good Samaritan got there before me and knocked the linkage loose.

To make this work well, you need a good light to look down inside the door panel and see where the rod comes off the back of the door handle

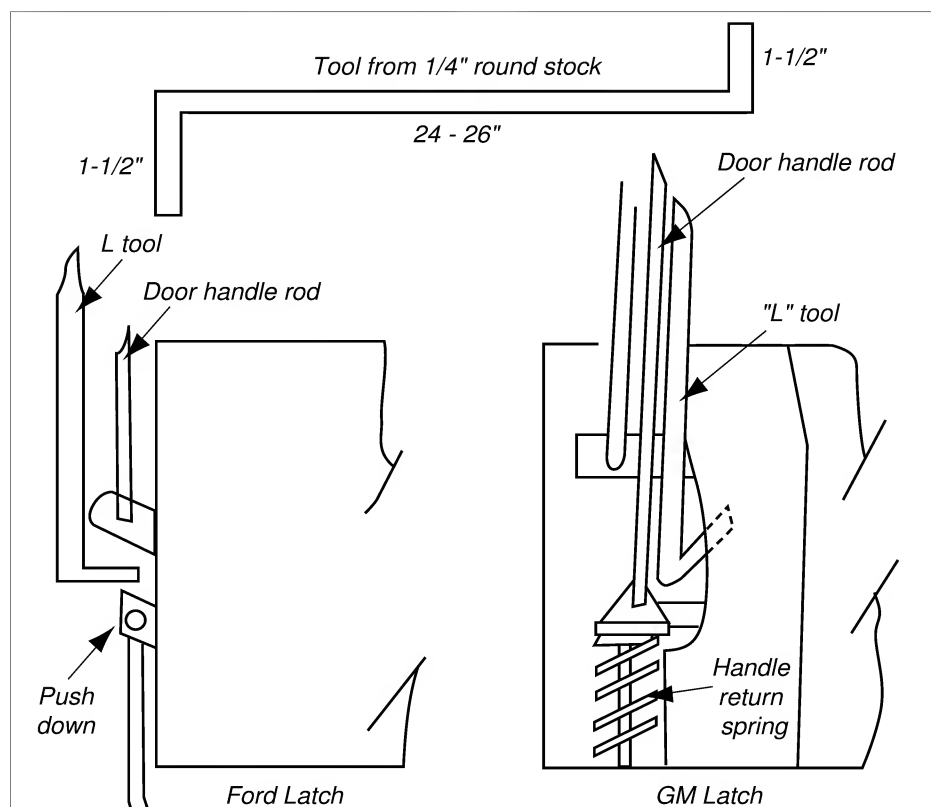


Illustration 3

Continued on page 110

Continued from page 108

(either back door or front door). Just follow the rod down to the latching mechanism and either push down on most Ford products or turn inward on most GM latches. On GM products you can tell when your tool is in position because you can feel a "springiness" when you push down on the tool. At that point, simply turn the short end of the tool into the latch and open the door. With Ford latches you place your tool as shown and push down.

It's always good to have back up methods available to help you accomplish your job. And, this is one that I'm glad to have found and share with others. I know this won't work on every vehicle you try it on, but I'm sure it will work on others besides Ford and GM.

G. D. Starling
Florida

*American Lock & Supply Merchandise
Certificate Winner*
Ford Van Opening

To enter a 1994 to 1995 Ford van quickly and easily, remove the license tag light and insert a long narrow screw driver into the opening at an angle. Push the screwdriver about 10"

into the door until it rests against the door lock. Then, just "nudge" the lock gently and your in.

Jerry Barnes
North Carolina

HPC Pistol Pick Winner
Quick Kwikset Fix

When the tailpiece on a Kwikset deadbolt breaks and locks your customer out of their house, you do not always have to destroy the plug or cylinder to get the door open.

I carry some 1/16" thick music wire (you can get it at your local hobby store) on my truck and when I'm confronted with this type of lockout, I make up a turning tool like the one in illustration four.

Then, using a shorter piece of the same wire, I lift the pins to the top of the plug and carefully drill a 3/32" hole through the back of the plug that allows me to access the broken tailpiece. Then, I push my turning tool through the hole in the back of the plug, and into the broken tailpiece. Now all I have to do is shake the door while turning on the "handle" of my tool, the lockbolt will throw and the door is unlocked!

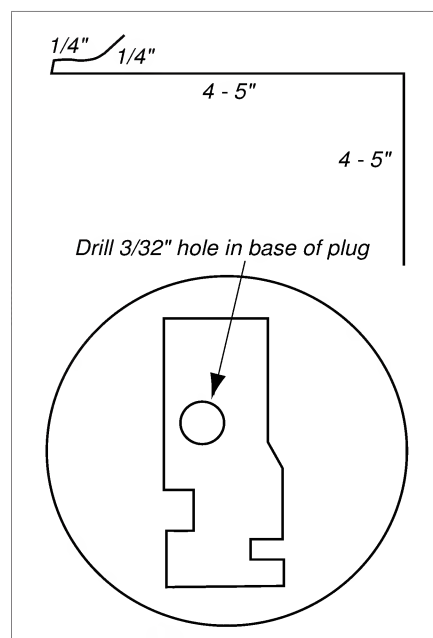
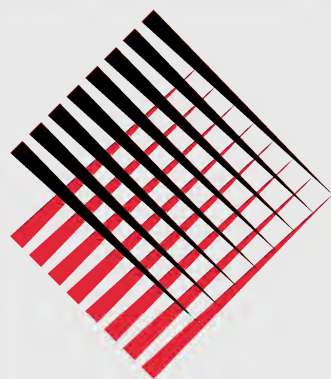


Illustration 4

Afterwards, I disassemble the lock, clean out the plug and cylinder, patch the hole in the plug with Liquid Steel, replace the tailpiece and put the lock back on the door.

Ken Shaw
Montana



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*Silca Rubber
Headed
Keyblanks
Winner
GM Mini
Van Entry*

A problem that I have encountered on GM mini vans concerns the cam on the latch handle of the rear door. The cam is spot welded to a post. The weld can break and leaves the cam hanging in the door - connected to the linkage - but will not allow the door to be opened.

You can determine this is the problem by pulling on the outside handle. When you do, the handle does not offer any resistance and does not spring back into place.

You can access this linkage and open the rear door by the following method:

First prepare a 1/2" Slim Jim by bending about 3/4" of the tip toward you about 30°. Then, about 8" from the tip, bend the Slim Jim 30° away from you. Place an arching bend in the Slim Jim about 4" from the tip so the Jim looks similar to the one in illustration five.

Now, mark the Slim Jim 11-1/2" from the tip. That mark gives you the location of the lock paw. Then, make another mark 16" from the tip. This mark will tell you when you are in the right area to hook the dangling cam and linkage.

You're now ready to open the door by inserting the Slim Jim into the door through the drain hole in the bottom of the door which is located 1-13/16" from the inner edge of the door. Insert the Slim Jim grab the linkage and pull down and open the door. Again, see illustration five. Once the door is open, the latch and cam can be

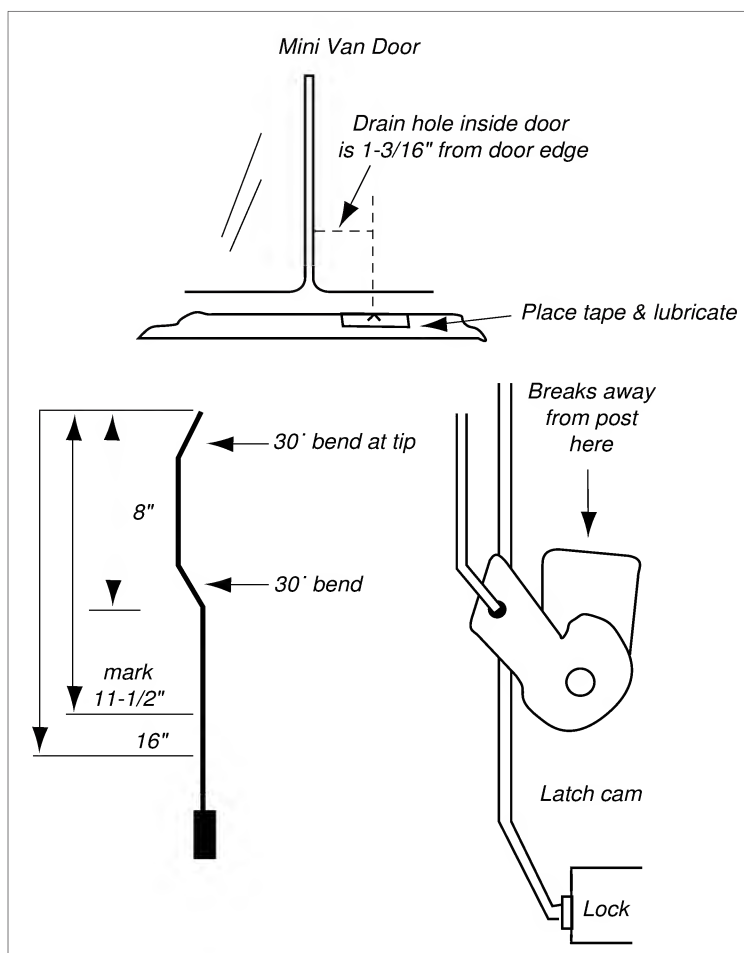


Illustration 5

served through an access panel on the edge of the door.

To keep from rubbing the paint off the body of the mini van, I place tape below the door and lubricate both the tape and the Slim Jim. I also mark the tape at the center of the drain hole.

I repaired the latch on my van by drilling and tapping for a 4-40 screw in the post to hold the cam in place. A new latch cam from the dealer is about \$35. I recommend preparing a Slim Jim on an exposed door of a mini van. Salvage yards are great places to learn.

Leo Koulogianes,
Tennessee

*Pro-Lok PK15 Professional Lock Pick
Set Winner
Ford Lock Reading*

To expedite reading the wafers in 1984-1/2 and up Ford door locks, I use a lock pick down through the wafer channel (from the back of the lock), with an uncut blank in the keyway. If the pick stops on the first position, I know the wafer is above the shearline and I cut that position one depth on my clipper. I repeat the process, one

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depth at a time until the pick will not catch the wafer. Then, I move on to the next position.

I find this technique works well for me and is quicker than trying to sight read the wafers. Especially at night.

Dominick Atanasio,
Via E-Mail

Editor's Note: Dom's tip is a good one for those who have trouble sight reading one of these locks. However, on some Ford products, like the Lincoln Town Car, trying to remove the lock to read it from the rear, in any manner, is too time consuming and difficult. Such situations are ready made for tryout keys, or a wafer reading tool.

Sievekings Products EZ-Pull GM Wheel Puller

Primus Plug Short Cut

When master keying Schlage Primus, you must have the proper side milling on the Primus key in order to move the finger pins so the side bar retracts. Also, you need the key in the cylinder to hold the finger pins and springs in place while removing or installing the plug.

To keep from top loading the master pins, I cut a Primus key to all number nine cuts. After removing the plug from the cylinder, I put it in a plug holder, remove the key and put the key with all nine cuts in the cylinder. This allows me to key the plug with the bottom and master pins and reinstall it in the cylinder without having to top load.

This sure saves us a lot of time.

Gene and Jim Rowh,
New Hampshire

A-1 Security Quick Pull Winner
Ford Ignition Removal

I have found that a fast way to remove a Ford 10-Cut ignition lock

and a quick way to get the customer back on the road when the key has been lost is to simply use a small wire with a hook on the end to reach in the ignition and remove the wafer springs one-by-one.

Then either rake the wafers lightly, or gently tap the housing around the lock. Either method will cause the wafers to align with the sidebar and allow you to remove the ignition for servicing or crank the car.

Once you have the ignition out of the car, it only takes a few minutes to decode the wafers, reload the springs and make a key. Best of all, you don't do any damage and you don't have to drill.

Lee Griggs,
Via E-Mail

Editor's Note: While I've used this method to remove these locks, Lee, removing the tumbler cap and replacing the springs is not always that easy. I always carry an All-Lock keyable Ford replacement lock just in case.

Major Manufacturing Product Winner
Shim Container

Need a really compact storage container for your curved shims? Try using the little plastic box that is used to package refills for lead pencils such as the Pentel 0.5.

They take up a lot less room in your tool box than the containers the shims come in.

Les Brocch,
Via E-Mail

Technitip Hand Book Winners
EZ Knee Protectors

Here's a tip for helping to save your knees.

I often install several Schlage Rhodes locks at a time in new buildings. This requires me to be on

my knees for a good part of the day. Needless to say, my knees do get sore.

I've found that the top foam packing material that protects the Rhodes lock during transport makes a great disposable kneepad.

Jeff Matteson
Via E-Mail

Screw Removal

What to do about the screw that refuses to come out? Buy left handed drill bits!

When a screw just won't come out, chuck up a left-handed bit in your drill motor, reverse the drill direction and watch most of these difficult screws come right out.

For the occasional really stubborn screw, you have drilled a hole which can be tapped to remove the screw or use an Easy Out on it.

Ralph Johnson,
Via E-Mail

Public Broadcast

Many locksmiths use cellular and cordless telephones today. These phones operate just like a radio transmitter and receiver. They send and receive signals. The problem is that anyone that has a compatible receiver (like a Police Scanner) can listen in on your conversations.

So, when you conduct any conversation over these phones do so as if a third party is listening in. Don't discuss confidential information, give out credit card or bank account numbers or privileged business information.

Treat these conversations as if they were being broadcast over your favorite radio station.

David Weaver,
Alabama

TLI



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From Silver Keys

"The chance to be in a movie doesn't come along very often. So I accepted." Says Craig Ostrander, locksmith turned actor.

To Silver Screen

by Craig Ostrander

Recently, locksmith Craig Ostrander of Precision Locksmith in South Carolina made his way to the Silver Screen. Here's his story as given to *The National Locksmith*.

Back in October '94 I received a call to rekey a couple locks at a vacant office complex for the production staff from Warner Bros. (The movie company.) They said they were in town to scout for shooting locations on an upcoming movie. I rekeyed a half dozen or so locks and turned in the bill. They paid me cash on the spot and I was off to the next job.

A few weeks past and I received another call from them wanting more locks rekeyed. They were moving in for the movie and over the next month or so they rented the top three floors of an office building, as well as several vacant stores around town. I made keys for them, rekeyed locks and

opened vehicles when one of the staff locked up a vehicle or lost keys.

During this time I got to know the production company employees pretty well and started asking questions about the movie. It turns out that the stars of the movie are Julia Roberts, Robert Duvall, Dennis Quaid, Gena Rowlands and several more I can't remember. I thought to myself, that this was pretty cool, maybe I'll get to meet someone famous on a future service call.

About mid-November I got a call from the Transportation Coordinator. He wanted to know what kind of service van I drove. He explained that they needed a locksmith van for the movie and, after I described my van, he asked if I could stop by and let him take some pictures of it. I told him that my van was an '89 Dodge and due to a busy schedule and some rainy weather it was in bad need of washing.

He said, "No, don't wash it." He had purchased two new vans and they were too new looking for the movie and they were looking for a "used looking van." That sounded like mine, so I stopped in. What he saw he really liked and ended up taking pictures from every angle. When he finished he told me that he would get back with me, then took me to the Casting Department.

The lady in charge there told me a part for a locksmith in the movie was open and (for reasons unknown to me) she really liked the way I looked and wanted to take some pictures of me.

A week or so later Transportation called and informed me that they didn't want my van for the movie. He said it was too bright (red) for what they wanted. Also, he did not know if they wanted me for the part or not. I was informed that decision comes



Taking advantage of the opportunity, locksmith Craig Ostrander hit the limelight for his part in a recent Warner Brothers production.

from the casting department and they would be in touch.

A week later the casting director called me and said that they wanted to use me if I was still interested. She informed me that the pay was \$75 a day. Realizing this was probably less than what I normally make, she said she would understand if I turned her down. However, because it was a night shoot, I figured I would not miss much work. Plus, the chance to be in a movie doesn't come along very often. So I accepted.

The part did not require me to do any actual locksmith work. In the movie Robert Duvall is the head of a family that lives on a plantation. He and his wife (Gena Rowlands) are on the outs and she has the locks of the house changed to keep him out. In the scene I'm in the van just leaving the plantation house as Robert Duvall is just arriving home. We pass on the driveway and wave at each other.

The whole scene from start to finish lasts maybe 10 to 15 seconds, but it took us over four hours of actual shooting to get those 15 seconds. I was really fascinated by the process of making a movie. I had to be there at 5

p.m. and I did not leave there till the sun was coming up at 6 a.m. We didn't start shooting my scene until about 1 a.m. and finished about 4 a.m. Because that was the last part of the scene and it started getting light by the time they had reset all the lights for the next shot, I had to come back the next night to do the first part of the scene.

They cover everything from all angles so there's a lot of repetition. Everything had to be timed perfectly so I would pass Duvall at a certain spot on the road every time. I was pretty nervous. We'd shoot with a stand in for Duvall until the timing was down. Then Duvall did the final run. That's when my heart really started pounding and all kinds of thoughts ran through my head. I really did not want to screw up and make a fool out of myself with a big star involved.

In the first shot Duvall's car was being towed by a truck with cameras mounted all over it, so he wasn't actually driving. The timing of the pass was all up to me. I was sitting in the van waiting and just thinking, "Ok, Craig, now which tree was that truck passing when I start? Did I count to

ten or fifteen before I started that last time? This is a narrow drive and lots of loose gravel, don't run into his old Lincoln!!!"

Relief. I got it right on the first take and they were all happy.

The second night they shot the whole sequence of me leaving from the top of the circular drive to passing Duvall at the fourth tree on the straight drive. In this shot Duvall actually drove the car. A crew had removed the back seat from the Lincoln and mounted a camera behind the driver to a get a shot from the his perspective. They mounted a light on the dash of my van so my face would be lit up, plus I had to be as far as possible to the right side of the drive so the locksmith logo would be readable through the camera.

The driveway was lined with bricks that had been put there over a hundred years ago so I had to be careful not to run into them (no easy task considering the thick layer of loose gravel they'd placed in the drive). The shot was rehearsed quite a few times to get the timing and distance down just right. After about a half dozen trial runs we had



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everything down pat, so they sent for Mr. Duvall.

He got in his car and I waited in the van. They had Duvall's car placed about 25 yards from where we were supposed to pass, while I was parked at the top of the circular drive in front of the plantation house. I had to round the circle and drive down the driveway about 50 yards to our passing location.

When the director said, "action" we both took off. I knew this was not going to work, Duvall didn't have as far as I did to get to the passing point. I wasn't even off the circle yet and here he was speeding by me, smiling and waving. The director yelled "Cut!, let's try that one again." This time they told Duvall that they'd give us each a separate "action" call. The first call for me to start then they'd start him. This time it worked perfect and we had a good take. The timing needed for this simple scene made me wonder about how they do one of those high speed chase or crash scenes.

On the first night Julia Roberts was in for a scene I got to meet her. I must say that she is just as pretty in person as she is in the movies. Both her and Robert Duvall are very nice people and the whole thing was a pretty exciting deal for me. Plus I came away from the experience with a new kind of respect for actors.

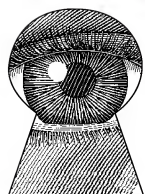
I know they make big money for doing their jobs, but do they put in the hours. When they do night shoots they shoot all night long. At this location they shot all night, six nights a week for a month.

All told, including the lock work and the movie segment, I made over \$1000 from Warner Brothers, a two month period. Plus I had the once in a lifetime opportunity to be in a movie.

The working title of the film is "The Kings of Carolina," with Kings being the family name. It's a movie about an equestrian family. Robert Duvall is the head of the King family and Julia Roberts is one of his daughters. I don't know what the release title name will be yet.

I don't go to the movies very often but I'm sure this is one I won't miss. Next time I'm picking a lock and the customer says - "It doesn't take this long in the movies" - I'll really know different. **TNL**

THRU THE KEYHOLE



A Peek at Movers & Shakers in the Industry

ATTENTION MANUFACTURERS AND DISTRIBUTORS: Would you like your company and products to be profiled in *Thru The Keyhole*? Please call Managing Editor, Tom Seroogy at (708) 837-2044.

Securitron's TSB-3 Touch Sense Bar

Securitron invented the concept of the Touch Sense Bar in 1987. The original series (called the TSB-1) has been a tremendous success. Here was a product that instantly released a magnetically locked door from the inside, without any moving parts or mechanical wear. A person exiting doesn't even realize that the door is locked. The TSB-1 also passed UL testing as part of immediate and delayed egress magnetic locking systems. Securitron had created an entire new product category.

Appearance

The original TSB-1 was an architecturally attractive product. The aluminum bar was actually designed by Adams Rite for their line of mechanical panic bars and then sold to Securitron for use in the original Bar. In creating the TSB-3, Securitron developed an all new extruded bar with a unique and distinctive look. The polycarbonate end pieces blend and flow from the shape of the bar itself and the result is a more modern and attractive product.

Mounting Strength

Exit bars are often used hundreds of times a day and this puts a cumulative strain on the fasteners. Bars also can be vandalized and receive physical abuse. Securitron upgraded the #10 mounting hardware employed on the TSB-1 to full 1/4" on the TSB-3. This has the effect of doubling the mounting strength. The TSB-3 is held on the door by four 1/4" machine screws that are mated to blind machine nuts or sex bolts (depending on the type of door). this

provides tremendous strength for the longest possible life on the job.

The extrusion is also massively strong as its thickness was increased over the older design. The TSB-1 used a two piece bar which "rattled" a bit in use. The new extrusion is single piece. Finally, the end pieces of the TSB-3 are custom injection molded out of Polycarbonate (Lexan) known for its strength and durability

Electrical Isolation

The Touch Sense Bar operates when it detects the proximity of a large conductive mass. People are conductive because of ionized fluids within the body (including blood). They are sensed even through gloves or clothing. The bar itself needs to be isolated from a metal door in order to work properly (because the door is conductive). While the older design had adequate isolation, problems could arise on a wet door, either by being opened into rain or by being cleaned with water. The new design dramatically increases isolation between the bar and a metal door and therefore is much more resistant to water splashing.

Two Pole Control Output

The purpose of the Touch Sense Bar is to release a magnetic lock from

the inside. It would appear that only a single pole relay (as the TSB-1 had) is required to do this. However, in many applications, an access control or alarm system must be notified that the exit event is "legal" to avoid setting off an alarm. The TSB-3 includes a two pole control relay output which provides direct release of the magnetic lock and also a separate signal (often called "request to exit" or "REX") to the access control or alarm system.

Easier Modification To Fit The Door

The older product was offered in three lengths to fit 36", 42" and 48" aluminum frame glass doors. The issue of length fit with solid doors is not critical as there is a lot of room on a solid door to locate the bar. On aluminum frame glass however, the mounting positions are narrow and the bar must be a fairly precise fit. At times, doors are produced in non-standard widths and the bar must be cut down. This was possible with the TSB-1 series but was complex. It required not only accurate cutting but drilling and tapping new holes for the end piece. With the new design, the aluminum bar "pockets" into the injection molded lexan end pieces. Cutting it down is just a matter of a hacksaw cut and if the cut is a little sloppy, the fact that the bar pockets into the end pieces still produces an attractive installation.

Avoiding The Need To Route Wires Through The Door

The Touch Sense Bar necessitates routing wiring from the frame into the bar. This can be done by a number of techniques. Each Touch Sense Bar is delivered with a stainless steel door cord which can be used to take the wires from the frame to the door. In some installations, an electric hinge or pivot is supplied by the installer for superior appearance. All these techniques, however, require drilling into the door to run the wire. This is



easy for a hollow door, but requires a lot of labor for a solid door. The new TSB-3 allows attachment of the furnished stainless steel door cord directly to the end piece of the bar and therefore completely avoids the problem of routing wires through the door itself.

Conclusion

With continued rapid growth of magnetic lock use, it is increasingly important to provide code legal safe egress from the inside. Securiton provided an innovative and effective solution to the problem with development of the original Touch Sense Bar. By listening to their customers, they have been able to come up with remarkable array of improvements for their new model.

Corby Introduces a Bulletin Board System

Corby's Bulletin Board System (BBS) is a customer support/general service communication system. The BBS is a centralized service, users can call via a computer and modem to place orders, ask questions, download information, and exchange messages with other users. The Corby BBS line

is dedicated to servicing the security industry and to provide information about our products and services.

With the BBS you can ask questions and get answers on Corby products, access an "on-line" Access Control System, order Corby products, download the latest Corby software, instruction sheets, sales literature and user manuals, 24 hours a day - seven days a week.

To access the BBS a computer or terminal, modem, and communications software is needed. Simply set the software to call (610) 433-1079 at 8 data bits, no parity, and 1 stop bit - "8n1". The BBS will handle modem speeds up to 9600 baud. All customer services are available on the initial call.

Security Lock Distributors

Reflecting the growing demand for their products and services, Security Lock Distributors has doubled the size of its technical advisory group and, in addition, has enlarged its office, warehouse and shipping facilities.

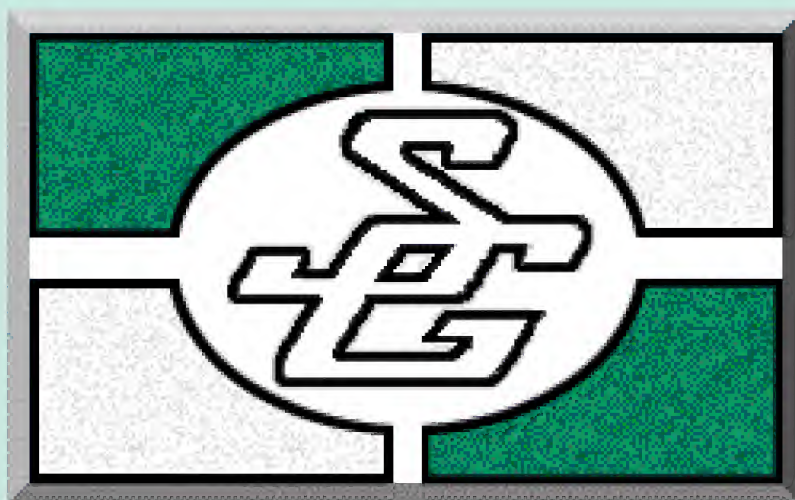
Technical specialists are now available all day as well as in the



evening to assist customers with answers to specification, application, installation and servicing problems that can't wait.

Security maintains in depth stock of all products made by Adams Rite, Arrow, Detex, Locknetics, Folger Adam, Simplex and Von Duprin. CCTV's and Intercom Systems have recently been added and new products are being planned for early 1995 introduction.

Security Lock Distributors offers many services including one-day guaranteed delivery, a free 304 page catalog, late hours of operation, free phone, free fax and dealer education programs, in addition to technical advisory assistance. For information, contact Security Lock Distributors, 59 Wexford Street, Needham Heights, MA 02194 or call (800) 847-5625.



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DLA Master Keying Software for Locksmiths

The computer has opened the door to many benefits for the progressive locksmith. It has simplified inventory, record keeping, invoicing, scheduling, and, of course, master keying.

Many less than happy hours were spent hand-writing the progression charts needed to create a master key system. Then the charts had to be scrutinized for MACS violations and other unusable change keys. Change keys had to be numbered. Submasters had to be derived and pinning charts had to be created. If a customized progression sequence was wanted or if rotating constants were to be used, the job became even more complicated. Then a list had to be made to track what change key went with which door.

Usually, a separate location list had to be typed to give to the client without giving any bitting or pinning information. Of course, the list had to be re-typed when maintenance started changing doors and moving cylinders around.

How many times did we say "There has to be a better way . . .?"

To provide the locksmith with a better way, DLA Security Systems Inc. developed two master key programs: MULTI-MASTER 6.5 for all popular standard cylinders, and MULTI-CORE 4.5 for all major interchangeable core cylinders.

Designed for both the experienced locksmith and the locksmith just starting out in master keying, MULTI-MASTER and MULTI-CORE can make complex master keying easy.

Flexible and easy to use, both programs feature user-selectable progression sequence, the ability to number change keys in both standard alpha-numeric format (MAN, AAA2 AAB1, etc.) and numerical format (1, 2, 3, etc.), a client log, tracking of master key cuts used in previous systems, pinning charts, the ability to input change key locations, and a location list for clients giving only the change key numbers and their locations. Add-on modules are also available for high security cylinders, such as the Medeco Biaxial cylinder.

In addition, MULTI-MASTER 6.5 also features true rotating constants.

When done efficiently and accurately, master key systems and

the sales related to master keying can be a very profitable field for the locksmith willing to invest himself in the technology available today.

The most important element of a successful business in a changing market is education. The locksmith in today's market must have the knowledge to deal with complex security needs. The second most important aspect is having the means to put that knowledge to work.

As technology progresses, many sites will be changing to more sophisticated electromechanical locking systems. The locksmith with master key systems in place will be best positioned to install and maintain the more sophisticated systems.

Technology won't go away. For every locksmith who says "I can (will) . . ." there used to be five who said "I can't (won't) . . ."

For more information about MULTI-MASTER 6.5 and MULTI-CORE 4.5, please contact DLA Security Systems Inc., 629 Kimball Avenue, Westfield, NJ 07090, (908) 233-7755.



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With American Safe & Lock prominently displayed on his van, writer/locksmith Steve Gebbia takes service calls from Lombard, Illinois.

TNL Authors And Their **HOTWHEELS**

Here you go. Meet the most famous locksmiths on wheels. *The National Locksmith* has a long and proud heritage of having locksmiths do our writing. Part time, full time and all the time, our writers deliver you the latest and best the way you see it - right from the field. While every month you see their articles, in this issue we show our writers at work with their service vehicles.



Who said a service vehicle has to be a van? Writer/locksmith Giles Kalvelage, of Access Control, takes care of his Hanover Park, Illinois customers from the back of this well equipped pickup.



Where the heck is Uvalde, Texas? Why, that's where writers/locksmiths Don and Sara Probasco perform their miracles and create their stories as A-1 Lock & Key.



What better way to service Phoenix, Arizona than from the seat of a new Dodge Ram van. Servicing the area as E. G. Gentry Locksmith, writer/locksmith Eric Gentry uses a magnetic sign for display.



Continued from page 122



From the west coast, writer/locksmith Michael Hyde of National Auto Lock Service cruises the South San Francisco area in this well equipped, ready to go service truck.

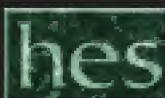


Continued from page 124



From the midwest, writer/locksmith Bob Sieveking and his crew service the Rockford, Illinois area as Lock Doctor. **TNL**





WHY DREAM FOR POWER?

by
Tom Seroogy

Despite the excellent selection of cutting equipment, I had no way to power them from the truck. So, how smart is that?

Okay, locksmiths, let's dream.

It's a balmy Friday afternoon. You're on the way to your last call for the day, it's going to be an early day. You drive relaxed, elbow resting on an open window, the warm wind whipping through your hair. Empty, trafficless streets allow you to breeze through green light after green light.

Neatly placed and visible street signs make for a fast trip and, of course, the address is posted prominently on the house. As you pull up the driveway, the smiling owner greets you with an offer for a drink before starting. So, after exchanging a few old war stories and quaffing a few root beers it's time for business.

Pulling yourself out of the Chase lounge, you grab your tools and swiftly complete the rekeys and install the deadbolts. The customer gladly accepts all the extra keys you made before you arrived and includes a nice tip with his payment. Time for a relaxing weekend.

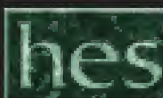
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1. The Redi-Line DA12I-2400-Q by Pacific Scientific.



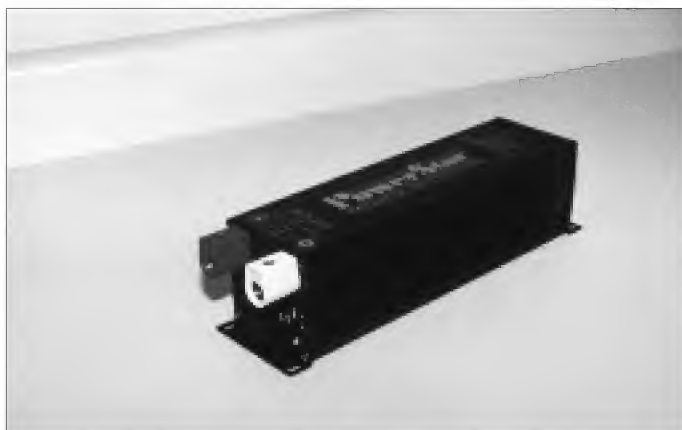
2. The Tripp Lite PV1200FC.



Continued from page 128



3. The Trace Engineering DR1512.



4. The PowerStar UPG1300.



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Back to reality. This is simply *The National Locksmith's* version of Total Recall - less Arnold and Sharon - enjoy it while you can.

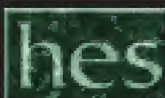
Now, how about a dose of reality.

A 3 a.m. call puts you out in the driving snow storm (rain storm, for those from more temperate climates). The tone of the phone call quickly deteriorates; the agitated customer is already belligerent and doesn't understand why it's going to take longer than 10 minutes for you to arrive; then affords the opportunity to debate your price on after hour calls, your policy on accepting checks, and your reasons for accepting Visa/ Master Card but not American Express.

After negotiating the weaving cars leaving closed local taverns, finding every red light the city has installed, realizing the customer meant "go right" instead of "go left," and assigning new (and unmentionable) names to all the streets with missing or hard to read signs, you arrive at the destination. Skulking in the shadows, the impatient customer stands cross-armed, leaning back on one leg, poised like a coiled snake eyeing its quarry. As you approach, the shadow simply points a wet, cold hand at the deadbolt that won't open.

Despite the recalcitrant host's previous denial, your examination of the lock reveals a broken key and pieces of toothpick jammed deep in the keyway. Screw driver marks deface the twisted plug and door jamb. No use arguing. It's drill time.

But even this easy task takes a turn. The cold, wet evening has sapped the life from the batteries in the flash light and the cordless drill. In your frantic search of the house



perimeter, no sockets or lights are found. Your flashlight relents to the cold and goes dark.

"Gotta light?" you ask the grimacing shadow.

Take that jolt of reality. It'll wake you up and make you realize that being equipped is more than being comfortable. If you handle emergency calls, you must have emergency equipment; if you perform auto work, you must have auto tools; if you install deadbolts, you must have installation tools. Or, as the Boy Scout's motto states, Be Prepared!

I've been in the locksmith field for nearly 12 years now. Still, year after year, I find that locksmiths are prepared for most jobs and emergencies, except one - the absence of power.

Now, I have to admit, that for years I cruised the Northwest Suburbs of Chicago carrying an HPC 1200CM, a Silca Club machine, an Ilco automatic duplicator, a Bosch 1196VSR hammer drill, and drop lights. Yet, through most of these years I never once considered backing up an otherwise excellent selection of tools with a way to power them from the truck. So, how smart is that?

Well, aside from the rather lost and incompetent appearance of a locksmith dragging a 100' extension cord around a parking lot or yard looking for an outlet, if you believe that the incident above can never happen, I'll tell you different! As a single voice of experience (and I'm sure there are many more of you) I urge all locksmiths to seriously consider a power source for the service vehicle.

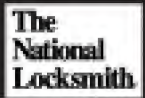
Despite the long presence of inverters, up until the last few years, generators have dominated the power source market. For most locksmiths, Redi-Line was the unit of choice. Today, however, with advancements in electronic technology, the inverter is fast replacing the generator. They are typically quieter, smaller and more efficient than generators, although, unlike the generator, they do not produce a true AC current. Also, on the plus side, there is an ample selection of excellent inverters from which to choose, including Redi-Line's own version.

Aside from the features typical of these units (i.e. low battery protection, overload protection, etc.) the



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locksmith should be particularly concerned with the output features, size, connection requirements, and instructions.

Of the four units received for review, the largest (physically) is the Redi-Line DA12I-2400-Q. (See *photograph 1*.) Weighing a massive 57 pounds and measuring 15.24"(l) x 13.38"(w) x 8.38"(h), this unit provides an impressive continuous 2200 watts/ 118 VAC output, and a surge output of 6000 watts. This is capable of operating most every power tool a locksmith uses. Mounted to the floor, its mere size may limit placement of the unit to the rear of most service vehicles. As with all the inverters, the closer to the battery the better.

Wire connections on this unit are very simple and can be completed by a locksmith familiar with basic auto electrical knowledge. Because AC output is provided through a two outlet GFI receptacle (standard 110 outlet with a ground fault switch), it is not necessary to hardwire outlets to the unit. Also available is a remote switch and cable assembly option, allowing the unit to be turned ON/OFF from a switch placed in a

convenient spot in the vehicle.

Redi-Line's years of experience with providing power sources to the locksmith trade is clearly shown in its easy to read and follow instruction manual. Noteworthy are the descriptions on battery selection and doing the electrical wiring that provide a clear and deductive exposition for a proper installation.

Redi-Line is a product of Pacific Scientific Motor & Control Div., 4301 Kishwaukee St., P.O. Box 106, Rockford, IL 61105. Phone (815) 226-3100 or fax (815) 226-3148. Redi-Line products are available through Redi-Line distributors with locksmith pricing for this unit in the \$1700 range.

The PV1200FC by Tripp Lite is a slightly smaller inverter that weighs in at 38 pounds and measures 6.5"(l) x 8.5"(w) x 12"(h); and delivers 1200 watts/ 120 VAC output, with a surge of 2400 watts. (See *photograph 2*.) The smaller size of this floor mounted unit makes it feasible for mounting in most service vehicles, although vertical mounting on a wall is not recommended. AC power is provided through a two outlet NEMA 5-15R

receptacle (standard 110 style outlet), making hardwiring unnecessary. A notable feature of this unit is its remote switch option. When used, this feature allows the inverter to be turned to the ON/OFF position through a remote switch.

Manufacturing inverters since 1960, Tripp Lite's experience is made clear by the well written manual that allows a locksmith familiar with auto electrical systems to install the inverter with few complications. The PV1200FC by Tripp Lite, 500 N. Orleans, Chicago, IL 60610, phone (312) 755-5401 or fax (312) 644-6505, is available through distributors for about \$599.

Next on the list is the DR1512 by Trace Engineering. (See *photograph 3*.) With a continuous output of 1500 watts/ 120 VAC, and a surge output of 3500 watts, the DR1512 measures in at 35 pounds and 21"(l) x 6"(w) x 7.25"(h). This unit offered the most features of all the inverters received, including the capability of charging batteries.

According to instructions, in order to meet its U.L. Listing, the unit must

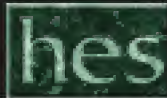
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Continued from page 132

be mounted on a vertical surface such as a wall. In a van application, however, this may be difficult considering the weight of the inverter. To compensate, it is recommended that locksmiths making service vehicle installations, mount the unit anywhere feasible, allowing room for adequate airflow.

As the output connections must be hardwired the locksmith should have some degree of knowledge and experience with doing simple electrical installations or have the unit installed by an electrician.

As for the instruction manual, Trace Engineering went all-out. Forty pages in length, the manual is simple, concise, and very user friendly. While not a substitute for having an experienced electrician do the install, locksmiths with some electrical background can easily understand the installation and application information provided in this manual. The DR1512 retails for \$900 from Trace Engineering Company, 5916 195th St. N.E., Arlington, WA 98223. Phone (206) 435-8826 or fax (206) 435-2229.

Our final entrant is, by far, the smallest, but only in size. PowerStar's UPG1300 is a 1300 watt/ 115 VAC unit with an impressive 6000 watt surge. (See photograph 4.) While its electrical capabilities are comparable to the other units, it measures only 11"(l) x 3.15"(w) x 3.3"(h) and weighs a mere 4.5 pounds. With these specs, it can be mounted virtually anywhere in the vehicle, including under benches or under the dash, with proper ventilation.

The AC output on this unit is provided by one standard 110 VAC style receptacle. A terminal block on its end allows the option of hardwiring remote receptacles. Another feature on the UPG1300 is its ability to be turned ON/OFF by a remote switch.

The manual for this unit is very basic and does not include specifications. However, enough information is given to allow the locksmith a full understanding of its features, installation and operation. Available through PowerStar distributors, the UPG1300 costs about \$750, although it will vary by distributor. PowerStar can be contacted at 1050-D E. Duane Ave., Sunnyvale, CA 94086. Phone (800) 645-4004 or fax (408) 774-6818. **TNL**

Talking Your Way To Cold Hard Cash

Word of mouth advertising is the best and least expensive form of advertising.



by Vic Szilard

One of the most overlooked, yet increasingly valuable tools in today's marketplace, for any industry, is the art of networking. I call it an art because it is much like impressing or manipulation, in that, it takes time to develop the skills necessary to be an effective networker. So what is it? Well, there have been many books and videos published on the subject; and, although not an instant money maker, it has proven its value to me and other business owners in my networking group. Simply put, networking - aka, network marketing - is word-of-mouth advertising. It is the best and least expensive form of advertising ever devised.

When I moved to Arizona, I got a job with an established lock company. I could barely speak to a stranger about anything, let alone try to sell them a safe or some other lock service. But by taking that first step, and joining a networking group, I have expanded the horizon beyond all of my wildest dreams. I now own and operate the most successful and reputable lock shop in town. Plus, I am in my second term as President of the Tri-State Business Professionals.

Our group is modeled after a national organization that was started by Ivan Misner, a management professor at Cal Poly University in Pomona, California. He got together with some friends one day to share referrals and The Business Network

was formed. There are now over 40 chapters in Arizona alone. Each chapter has between 15 and 40 members. There is only one business allowed per industry category so there is no competition within the group. Members are approved by a membership committee and pay dues of \$195 per year. (Our membership dues are only \$ 120 per year and are tax deductible. We decided not to join the national network.) In 1993 TBN passed 245,000 leads in Arizona that amounted to about \$7 million in sales.

The idea is that you will have 15, 20 or maybe even 40 people out there selling for you everyday, your only obligation is to do the same for them. Networking groups like mine are popping up all over the country. This is not just for owners, anybody can represent the company at the weekly meetings. The more people you have in your group, the more salesmen and women you have working for you.

Each week we meet for lunch at the local Elks Lodge. Members are encouraged to bring a guest. This helps build the group and enhance the networking concept. As an incentive, the group pays for the guest's lunch out of the membership funds. We introduce the guests and allow them to briefly explain what their business is. Next we take care of regular business, and then each member stands up and does a 30 to 60 second commercial on their business.

Three times a month one member does a business presentation for the

group so everyone has a better understanding of what it is they do. Once a month we put on an educational seminar whereby one member, or an outside speaker, will try to motivate and educate the group as a whole on ways of networking that have worked for them. Just prior to closing the one hour meeting, everyone fills out a lead slip if they have any leads to pass. If not, they may offer a testimonial about another member's product or service that they may have recently used.

Everyone has a sphere of influence of around 250 people, from family members to other business owners to civic leaders. However, you want not only the business of the people in your sphere, but also the business of the people that they know. Networking can accomplish this.

So how is it done? You can network with anyone at any time. Boy Scout meetings, Chamber mixers, sporting events; all present an excellent opportunity. People do business with people they know, like and trust. If your friend tells another person that you are the right person for the job, chances are they will take his word for it and you will get the job.

Here are eight tips for effective networking:

1. Meet influential people. They're the ones who have been around a long time and know a lot of people. If they have a good reputation, they have a

large sphere of influence. (Examples: Mayor, city counsel men/ women, etc.)

2. When meeting potential customer/ networkers for the first time, let them do the talking. People love to talk about themselves and their businesses. One of the biggest mistakes salespeople make is not listening to the customer. It's a turn off. Don't rush them, the customer will buy when he or she is ready. This can only happen after you have gained their trust.

3. Always carry a supply of your business cards and those of your network members. Ask for a business card whenever you come into contact with another business person.

4. Ask questions that require more than just a yes or no answer. For example, a good question is, "John, how will I know that somebody I am talking to is a good prospect for you." This tells them that you care about them and will be on the lookout for new customers for them. Chances are they will do the same for you.

5. Give a lead or referral whenever possible. If one of your customers says he wants to re-finance his home,

refer him to someone you know and trust that is in the loan business. Then call up your loan buddy and give him the name and phone number of the customer so he can follow up on it from his end.

6. Send thank you notes whenever possible. This tells the person that you haven't forgot about them. When you are out and about and have some time to spare, stop by a customer's place that you haven't seen in a while and just ask them how they are doing. You don't want anyone to forget about you. Do things that will keep your name on their mind.

7. Build a mailing list and send holiday, birthday or other greeting cards at least once a year. Again, this lets them know that you are thinking of them and keeps your name in their head. Another excellent idea is to have your name printed on inexpensive calendars, calculators, pens or note pads and give these out. Every time they use the item your name will be staring them right in the face.

8. Think Long-Term. Too many salespeople try to sell something as soon as they come into contact with a potential customer. These are short-

term thinkers, all they want to do is make that one sale and get to the next appointment. This often leaves the customer with a bad taste in his mouth. Plus, it yields a low overall success rate because you will not get the repeat and referral business of a long-term thinker. Long-term means build relationships of trust before you try to sell anything.

These eight tips have worked well for me. The only thing I can add is that you must offer the best in customer service at all times. My customers are happy or I don't charge them. It's as simple as that. This type of attitude will get you the repeat and referral business that everyone needs to be successful.

*For more information on networking or how to start your own group, feel free to call or write to Vic Szilard, Double Tree Lock & Safe, Inc., 5635 Highway 95, Suite F, Bullhead City, AZ 86426. Phone (520) 768-5397, FAX (520) 520-6066; or E-mail CompuServe address 75213,2336, Internet address 75213.2336@compuserve.com **INTL***



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CCTV FOR EVERY LOCKSMITH

Excuses for not doing CCTV are becoming fewer and fewer as systems get easier and easier to install and operate.

by Tom Seroogy

Is CCTV for every locksmith? Probably not. But the excuses for not getting involved are becoming fewer and fewer as systems get easier and easier to install and operate. Plus, although many states are now requiring an alarm license to do alarm work, CCTV is often excluded from licensing requirements. This leaves a whole new avenue of profit making potential open to the locksmith.

In our Electronic Test articles we recently covered a series on CCTV. To take advantage of this series and a new profit source, we are going to take a look at an extremely easy unit

to install, the Smart Choice, part #LKM 2068SYS, from Lockmaster. The whole setup comes as a simple kit that includes the monitor, a CCD camera, a camera mounting pedestal and 60' of cable (optional 300' available), and costs the locksmith \$319.20. Accessories such as a two-way intercom, alarm switches, remote control, VCR, and line amplifier allow the locksmith to configure a simple system for just about every need. (See photograph 1.)

The 10" black and white monitor actually serves as the main control panel into which everything is plugged. Using simple RJ-11-E phone

jack connectors, the monitor is capable of handling up to four separate cameras. (Extra cameras, part #PSC1, can be purchased for \$232.75 and include a 60' cable.) LED's and controls on the front of the monitor allow the user to choose the camera they want to see on the monitor, or can set it for automatic switching.

One-way audio is standard with the unit. A volume switch on the front of the monitor allows the user to hear any visitors as they enter. The microphone for the audio system is built into the camera. If two-way communication is desired the #K 0-600



1. The Smart Choice CCTV system by Lockmasters includes all that's needed for a simple CCTV install.



2. Mount the camera pedestal to the wall or ceiling.

Continued from page 138



3. Mount the camera to the pedestal.

Call Box (\$15.96) can be purchased and connected to the camera. A Talk/ Listen button appears on the front of the monitor for carrying on a conversation.

The CCD camera is roughly the size of two packs of cigarettes and includes the audio microphone and two sockets.

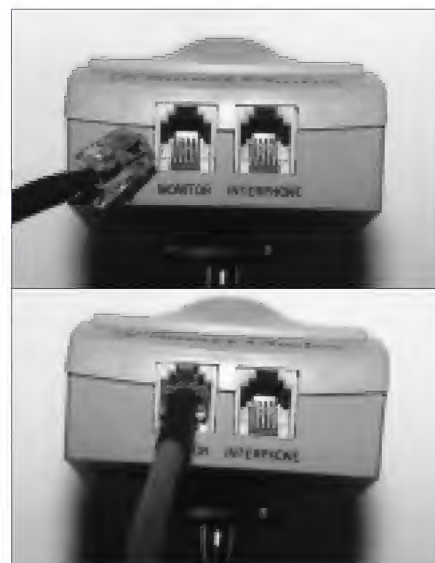
One socket is used for connection to the monitor and the other is for connection to alarm switches and/ or the call box. Covert cameras disguised as a thermostat are also available.

The cable that comes with the unit allows for a 60' run. Other cables available include 25', 100', 150' and 300'. For run more than 300' the #K0-100 Line Amplifier (\$152.95) is needed to guarantee a clear picture and sound. The amplifier will allow for runs up to 1200'. For runs over 1200' contact technical support at 800-654-0637.

In making this setup one of the easiest on the market to install, the cable uses the RJ-11-E connectors. This, however, does not mean that standard phone line can be used or spliced into the system. Despite using the phone connectors, the cable is specifically designed for carrying audio and video signals, and is specially wrapped with a foil shield to protect against outside radio interference. Any splicing or cutting of the cable is not only unnecessary, it voids the warranty.

To make the installation, mount the camera pedestal where the camera can best cover the area the customer wants surveyed. (See photograph 2.) Make sure that the camera does not look directly into the sun or bright light. Also, to capture the best picture possible, try and avoid as much back lighting as possible.

When complete, attach the camera to the pedestal. (See photograph 3.)



4. With the easy, ready-to-connect cable, it's just a matter of plugging into the right socket. Here we plug in the camera.

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Continued from page 140



5. Like the camera, plug the other end of the cable into the monitor port or socket.



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6. Plug it in and turn it on. You're done!

Loosening the large, plastic wing nut that controls camera position makes it easier to thread the pedestal to the back of the camera. Once the camera is attached, point it in the general area to be covered. Tighten the wing nut.

Next, run the wiring up to the camera and plug it into the monitor port. (See photograph 4.) If installing a call box, install the box and run the wiring from the box to the camera. With that complete, take the other end of the wire and plug it into the CA-1 socket on the back of the monitor. (See photograph 5.) If more cameras are being used, plug them into the other sockets or ports. Remember, up to four cameras can be used. You're done.

Facing the front of the monitor a small dip switch with 1-2-3-4 can be seen. This is to indicate what cameras are being used and will determine the switching of the monitor. Because only one camera, plugged into the CA-1 port, is being used for our installation, only the number 1 switch should be on.

Plug the monitor in and turn it on. Adjust the camera to cover the area that is to be surveyed and then adjust the contrast and brightness to get the best picture. (See photograph 6.)

A simple reception area type installation will usually take about 1-1/2 to 2 hours to complete. Depending on what area of the country you're in, an installation of the basic unit can run from \$550 to \$800. Add in a few accessories and you've got some hefty profit with a little bit of work. Good Luck.

For more information on this and other CCTV products, contact Lockmasters at (800) 654-0637. **TNL**



KEY CODES

Kawasaki Series 8001-9000 / Z5001-6000



8001-9000



PROFILE

Spacing:

1-.216, 2-.314, 3-.412,
4-.510, 5-.608, 6-.706,
7-.804

HPC 1200 CM

Code Card: MC51A
Cutter: CW1011
Stop: Shoulder

Depths:

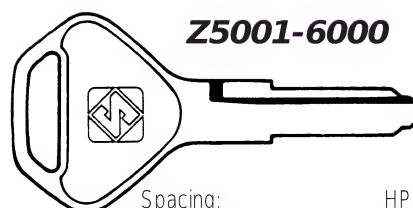
1-.296, 2-.276, 3-.256,
4-.236

Framon

Cut Start: .216
Cutter: FC8445
Cut To Cut: .098
Spacing Block: #3
Stop: Shoulder

Key Blanks:

Ilco X105
Silca KW15BP



Z5001-6000



PROFILE

Spacing:

1-.098, 2-.197, 3-.295,
4-.393, 5-.492, 6-.591

HPC 1200 CM

Code Card: CMC50
Cutter: CW1011
Stop: Shoulder

Depths:

1-.258, 2-.238, 3-.218,
4-.199

Framon

Cut Start: .100
Cutter: FC8445
Cut To Cut: .100
Spacing Block: #3
Stop: Shoulder

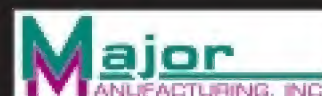
Key Blanks:

Ilco X103
Silca KW7



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Series: Kawasaki		8028	1123212	8057	1132422	8086	3213212	8115	2244132	8144	3214342
8001-9000		8029	3124212	8058	4133422	8087	1214121	8116	2231142	8145	1231432
8001	1143212	8030	2132112	8059	2134422	8088	4223112	8117	4232142	8146	4231432
8002	2141212	8031	4134112	8060	2121432	8089	1213122	8118	1233142	8147	1234432
8003	3144212	8032	4121122	8061	4122432	8090	3214122	8119	3234142	8148	3241332
8004	4142212	8033	3123122	8062	1123432	8091	1231212	8120	4211412	8149	1242332
8005	1123232	8034	1124122	8063	3124432	8092	3233212	8121	3213412	8150	2244332
8006	3124232	8035	2112132	8064	4113442	8093	1234212	8122	1214412	8151	2231342
8007	4113242	8036	4114132	8065	1141322	8094	4231212	8123	3221312	8152	4232342
8008	2114242	8037	2112312	8066	3143322	8095	1211232	8124	4223312	8153	3234342
8009	4141122	8038	4114312	8067	1144322	8096	3213232	8125	1213322	8154	2312112
8010	3143122	8039	2121412	8068	4141322	8097	1214232	8126	3214322	8155	4314112
8011	1144122	8040	4122412	8069	2132332	8098	4211232	8127	1231412	8156	1323212
8012	2132132	8041	1123412	8070	4134332	8099	1242112	8128	3233412	8157	3324212
8013	4134132	8042	3124412	8071	1121342	8100	4243112	8129	1234412	8158	2332112
8014	4121142	8043	4113422	8072	3123342	8101	2244112	8130	4231412	8159	4334112
8015	3123142	8044	2114422	8073	1124342	8102	1233122	8131	1211432	8160	1321122
8016	1124142	8045	2132312	8074	4121342	8103	3234122	8132	3213432	8161	3323122
8017	2141232	8046	4134312	8075	2141432	8104	3221132	8133	1214432	8162	1324122
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8021	3131242	8050	4121322	8079	1132442	8108	3214142	8137	4243312	8166	2341212
8022	1132242	8051	2112332	8080	4133442	8109	1231232	8138	2244312	8167	4342212
8023	4133242	8052	4114332	8081	1141342	8110	1234232	8139	3234322	8168	1343212
8024	2134242	8053	2141412	8082	3143342	8111	4231232	8140	3221332	8169	3344212
8025	4141142	8054	4142412	8083	1144342	8112	3241132	8141	2211342	8170	1323232
8026	3143142	8055	1143412	8084	4141342	8113	1242132	8142	4212342	8171	3324232
8027	1144142	8056	3131422	8085	4211212	8114	4243132	8143	1213342	8172	3311242

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8173	1312242	8203	1312422	8233	1343432	8263	2424132	8293	4411432	8323	4123221
8174	4313242	8204	4313422	8234	1332442	8264	4412142	8294	3441312	8324	3112231
8175	2314242	8205	2314422	8235	1341342	8265	1413142	8295	1442312	8325	1134221
8176	1341122	8206	2332312	8236	4341342	8266	3414142	8296	2431322	8326	2131341
8177	3343122	8207	4334312	8237	1344342	8267	1431232	8297	4432322	8327	2124311
8178	1344122	8208	1321322	8238	4411212	8268	1434232	8298	3434322	8328	1122331
8179	4341122	8209	4321322	8239	3413212	8269	4431232	8299	3421332	8329	2124331
8180	2332132	8210	1324322	8240	1414212	8270	3441132	8300	1422332	8330	3144331
8181	4334132	8211	2312332	8241	1422112	8271	1442132	8301	2424332	8331	2123421
8182	1321142	8212	4314332	8242	4423112	8272	2431142	8302	2411342	8332	2123241
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8191	2334242	8221	3324432	8251	1411232	8281	4423312	8311	2431342	8341	3132231
8192	1341142	8222	3311442	8252	3413232	8282	3424312	8312	4432342	8342	4112321
8193	3343142	8223	1312442	8253	1414232	8283	4412322	8313	3434342	8343	2112341
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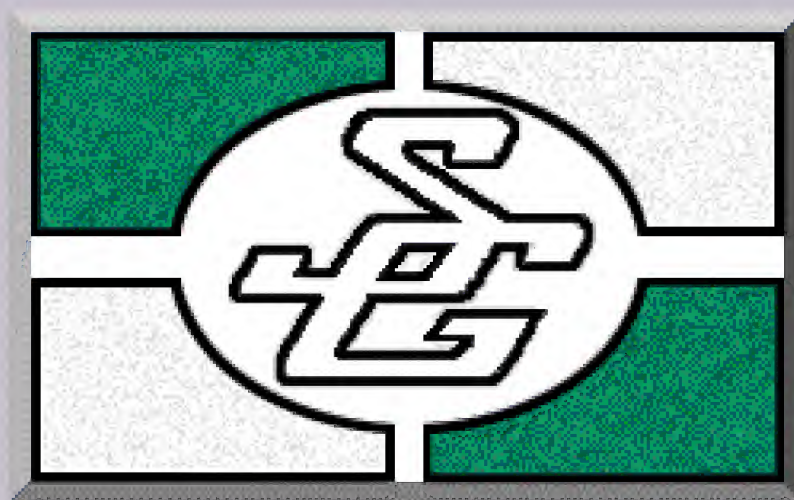
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8353	4143241	8382	4232421	8411	4224341	8440	1423411	8469	2442431	8498	4424121
8354	3132431	8383	3234421	8412	3242341	8441	2434421	8470	4343221	8499	2433221
8355	4143421	8384	3233241	8413	3312211	8442	2413131	8471	4334431	8500	4311421
8356	3141441	8385	1231441	8414	2314211	8443	3442341	8472	1443411	8501	4431241
8357	4134431	8386	3233441	8415	2332321	8444	4421121	8473	1441421	8502	3413441
8358	4214211	8387	1221331	8416	4311331	8445	2442211	8474	3442321	8503	1423321
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8362	4211241	8391	2242431	8420	4323221	8449	3312431	8478	1412421	8507	3424231
8363	2231121	8392	1223321	8421	2344131	8450	4424321	8479	4422431	8508	1443341
8364	1231241	8393	4224321	8422	3321241	8451	3441411	8480	2343421	8509	2434221
8365	1224131	8394	4224141	8423	2323241	8452	3442121	8481	4414231	8510	4323241
8366	4241211	8395	1243121	8424	3341221	8453	2413311	8482	2421441	8511	3433241
8367	1244231	8396	4244121	8425	2343221	8454	2422431	8483	4413421	8512	4431421
8368	4224121	8397	1241221	8426	2321131	8455	3413241	8484	3424431	8513	4411241
8369	1223341	8398	3242321	8427	3341241	8456	1441221	8485	2323421	8514	1431441
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8376	2211421	8405	3213441	8434	4314411	8463	3433441	8492	3422141	8521	1434241
8377	3214421	8406	4232441	8435	3312231	8464	2422411	8493	1421221	8522	4323441
8378	3213241	8407	1244211	8436	2314431	8465	3422321	8494	4314431	8523	1423341
8379	4211441	8408	4241141	8437	2442231	8466	1443321	8495	3442141	8524	2332341
8380	3233221	8409	4241143	8438	1432421	8467	1321231	8496	3321421	8525	2334431
8381	2231421	8410	1224421	8439	2344311	8468	3424411	8497	1412241	8526	3321441



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8527	2334341	8557	1134133	8587	3341243	8617	1312213	8647	3341423	8677	1334113
8528	1443141	8558	4224123	8588	2144113	8618	4312233	8648	3312413	8678	1233443
8529	4334231	8559	4221243	8589	4212423	8619	1133143	8649	3341443	8679	1423223
8530	4334411	8560	3244243	8590	1224243	8620	1212413	8650	1244223	8680	2323423
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8535	4122113	8565	3134223	8595	4332443	8625	4423433	8655	4143223	8685	4343423
8536	4232423	8566	2432243	8596	2131433	8626	3422343	8656	4224343	8686	2133113
8537	4414233	8567	2442213	8597	3121313	8627	1421423	8657	1443343	8687	2143443
8538	3422323	8568	3112233	8598	2413133	8628	2411213	8658	1221313	8688	1421223
8539	4434213	8569	4322113	8599	2442233	8629	3242123	8659	1421443	8689	2412443
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8542	2442433	8572	2443133	8602	2212143	8632	3141223	8662	2323443	8692	2343243
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8546	1232323	8576	3442143	8606	1424243	8636	1142123	8666	1241243	8696	1213124
8547	3312213	8577	4244123	8607	1224423	8637	4423243	8667	4214213	8697	2114244
8548	2411423	8578	1441243	8608	2123443	8638	2442413	8668	2343223	8698	4313424
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8550	3112213	8580	2232443	8610	1142143	8640	2231423	8670	2343423	8700	3124214
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8554	1314133	8584	3121443	8614	3422123	8644	3442323	8674	2433113	8704	3213234
8555	2413313	8585	2123423	8615	4214233	8645	4431243	8675	1312143	8705	1234414
8556	2114343	8586	4123233	8616	2242433	8646	2143223	8676	4223433	8706	1324144



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8707	3441134	8736	4431234	8765	4211414	8794	2424114	8823	1343434	8852	4423134
8708	2132314	8737	1132244	8766	1431234	8795	3343124	8824	4133224	8853	4212124
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8710	3434124	8739	3131424	8768	2314224	8797	1141344	8826	4423314	8855	3214144
8711	1213344	8740	4211434	8769	2244334	8798	1123414	8827	2341234	8856	2134224
8712	1442314	8741	1442114	8770	1213144	8799	2244134	8828	4232144	8857	1411234
8713	4232324	8742	2431324	8771	1141324	8800	4212344	8829	4121324	8858	1433144
8714	2321434	8743	3124234	8772	2121234	8801	2334224	8830	3144234	8859	4314314
8715	2112134	8744	1341144	8773	2244114	8802	2312314	8831	2332114	8860	4231234
8716	3323124	8745	2114424	8774	1344324	8803	4342234	8832	2112334	8861	1413124
8717	3143144	8746	2132114	8775	4223114	8804	2114224	8833	1321124	8862	4134134
8718	1324324	8747	3143344	8776	1143234	8805	3234344	8834	3241334	8863	4342214
8719	3213214	8748	4114314	8777	4314114	8806	4322414	8835	2134244	8864	1124324
8720	4412324	8749	1242314	8778	1332424	8807	1242334	8836	3214124	8865	2334244
8721	3324243	8750	4321324	8779	4314134	8808	3131224	8837	4232344	8866	3124414
8722	3234124	8751	2312114	8780	4423114	8809	1323434	8838	1214414	8867	4334134
8723	2424134	8752	2431344	8781	3441334	8810	4142214	8839	1434234	8868	2314244
8724	2431124	8753	3311224	8782	2211344	8811	4341324	8840	4114334	8869	1341324
8725	3221134	8754	4243114	8783	1422114	8812	1214234	8841	1234214	8870	2424334
8726	4211214	8755	4212324	8784	4243134	8813	4134114	8842	3311424	8871	4223314
8727	4212144	8756	2141434	8785	3441314	8814	2341434	8843	1332244	8872	1213324
8728	3241134	8757	1214214	8786	3214344	8815	2411324	8844	3213414	8873	4231434
8729	4321124	8758	1231234	8787	2121414	8816	2132334	8845	2141234	8874	1414214
8730	3311244	8759	4113244	8788	1422134	8817	1413344	8846	4313244	8875	3344234
8731	4231414	8760	3143324	8789	1434214	8818	4133424	8847	2341214	8876	1214434
8732	1242114	8761	4411214	8790	1442134	8819	1143434	8848	1123234	8877	4231214
8733	1422334	8762	1343234	8791	1124144	8820	1413324	8849	1231214	8878	2312134
8734	1341344	8763	1233124	8792	3233414	8821	1431434	8850	2431144	8879	3234144
8735	3413414	8764	1242134	8793	4142234	8822	3413214	8851	1121344	8880	4341124



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8001-9000 / Z5001-6000

8881	2334424	8911	1324344	8941	2321414	8971	1124124	Series: Kawasaki Z5001-6000	Z5029	113332
8882	2121434	8912	3414124	8942	3413234	8972	4243314		Z5030	331133
8883	1344124	8913	4141324	8943	4121344	8973	1143414	Z5001	Z5031	211332
8884	3323144	8914	4321144	8944	4113424	8974	1321324	Z5002	Z5032	011332
8885	1321344	8915	1124344	8945	3324414	8975	3241314	Z5003	Z5033	011332
8886	4113224	8916	2321214	8946	4432324	8976	3414324	Z5004	Z5034	323242
8887	2332134	8917	1323234	8947	2341414	8977	3124434	Z5005	Z5035	331322
8888	3131244	8918	1144124	8948	3413434	8978	4134314	Z5006	Z5036	231213
8889	1123214	8919	3123344	8949	4232124	8979	1431214	Z5007	Z5037	112123
8890	4144134	8920	3221334	8950	2314424	8980	3324434	Z5008	Z5038	232432
8891	2231144	8921	3324214	8951	4134334	8981	4314334	Z5009	Z5039	131342
8892	4412124	8922	1341124	8952	2231124	8982	3234324	Z5010	Z5040	342113
8893	1343214	8923	3421334	8953	2211324	8983	4334114	Z5011	Z5041	042113
8894	1234434	8924	2411344	8954	3123144	8984	1321144	Z5012	Z5042	233312
8895	1144324	8925	3123324	8955	3144214	8985	2141414	Z5013	Z5043	341233
8896	2312334	8926	3434324	8956	2332314	8986	1143214	Z5014	Z5044	134422
8897	4133244	8927	3213434	8957	2321234	8987	1121324	Z5015	Z5045	321312
8898	4122414	8928	1323214	8958	3344214	8988	3221314	Z5016	Z5046	213222
8899	2231324	8929	1433124	8959	1413144	8989	4334314	Z5017	Z5047	013222
8900	3233214	8930	4122434	8960	3433214	8990	4121124	Z5018	Z5048	232443
8901	1312244	8931	3421314	8961	4121144	8991	3433414	Z5019	Z5049	332413
8902	1323414	8932	4432124	8962	1312424	8992	3142443	Z5020	Z5050	032413
8903	1233144	8933	4211234	8963	2141214	8993	4421423	Z5021	Z5051	032413
8904	3143124	8934	4322434	8964	3421134	8994	3424423	Z5022	Z5052	243131
8905	1132424	8935	4313224	8965	2121214	8995	4124423	Z5023	Z5053	333233
8906	1414234	8936	1343414	8966	1411434	8996	3431413	Z5024	Z5054	123413
8907	4431214	8937	3123124	8967	1431414	8997	4433423	Z5025	Z5055	023413
8908	4321344	8938	1211234	8968	2134424	8998	2334143	Z5026	Z5056	224233
8909	3214324	8939	2424314	8969	2244314	8999	1241423	Z5027	Z5057	242413
8910	1231414	8940	1211434	8970	1123434	9000	4434233	Z5028	Z5058	113342



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Z5059	313113	Z5088	223421	Z5117	232232	Z5146	234212	Z5175	031122	Z5204	133423
Z5060	342423	Z5089	121334	Z5118	313431	Z5147	224442	Z5176	223322	Z5205	313312
Z5061	221341	Z5090	223313	Z5119	131313	Z5148	441133	Z5177	333441	Z5206	013312
Z5062	233123	Z5091	124441	Z5120	341123	Z5149	333431	Z5178	122234	Z5207	123134
Z5063	321213	Z5092	222132	Z5121	233343	Z5150	211312	Z5179	244341	Z5208	232441
Z5064	112422	Z5093	332242	Z5122	311212	Z5151	122221	Z5180	113232	Z5209	334413
Z5065	324321	Z5094	311342	Z5123	123422	Z5152	343141	Z5181	231112	Z5210	241321
Z5066	231242	Z5095	212212	Z5124	332332	Z5153	343244	Z5182	341223	Z5211	121244
Z5067	212443	Z5096	012212	Z5125	241241	Z5154	112431	Z5183	122441	Z5212	243133
Z5068	112312	Z5097	233431	Z5126	113133	Z5155	331311	Z5184	343334	Z5213	331221
Z5069	323121	Z5098	133344	Z5127	333411	Z5156	243223	Z5185	234221	Z5214	124412
Z5070	243421	Z5099	033344	Z5128	331442	Z5157	212423	Z5186	122113	Z5215	024412
Z5071	131223	Z5100	213323	Z5129	243311	Z5158	132321	Z5187	212423	Z5216	221232
Z5072	221113	Z5101	122232	Z5130	113243	Z5159	322113	Z5188	124331	Z5217	243412
Z5073	243421	Z5102	341213	Z5131	212113	Z5160	223212	Z5189	342441	Z5218	043412
Z5074	122432	Z5103	112441	Z5132	321222	Z5161	131232	Z5190	213332	Z5219	223111
Z5075	333342	Z5104	313311	Z5133	132431	Z5162	342234	Z5191	134211	Z5220	343422
Z5076	241313	Z5105	221221	Z5134	342344	Z5163	341321	Z5192	244121	Z5221	223344
Z5077	212412	Z5106	133134	Z5135	213231	Z5164	221241	Z5193	321244	Z5222	134231
Z5078	121323	Z5107	242442	Z5136	131113	Z5165	233424	Z5194	333324	Z5223	232122
Z5079	333131	Z5108	113333	Z5137	242424	Z5166	033424	Z5195	222211	Z5224	323211
Z5080	342434	Z5109	332112	Z5138	121332	Z5167	313122	Z5196	113122	Z5225	023211
Z5081	231312	Z5110	312422	Z5139	342131	Z5168	321421	Z5197	224433	Z5226	321334
Z5082	031312	Z5111	222332	Z5140	343411	Z5169	233334	Z5198	133344	Z5227	234242
Z5083	212124	Z5112	133243	Z5141	213341	Z5170	211134	Z5199	331112	Z5228	322124
Z5084	321231	Z5113	242122	Z5142	112211	Z5171	332211	Z5200	031112	Z5229	322443
Z5085	343312	Z5114	311243	Z5143	222121	Z5172	321341	Z5201	031112	Z5230	242332
Z5086	211242	Z5115	113412	Z5144	332231	Z5173	021341	Z5202	031112	Z5231	224224
Z5087	131133	Z5116	321321	Z5145	311331	Z5174	131122	Z5203	344232	Z5232	024224

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Z5233	223111	Z5263	223223	Z5293	332123	Z5323	342223	Z5353	314441	Z5383	212324
Z5234	312224	Z5264	313421	Z5294	213312	Z5324	343331	Z5354	241333	Z5384	012324
Z5235	124432	Z5265	224334	Z5295	233134	Z5325	234344	Z5355	132222	Z5385	012324
Z5236	123132	Z5266	122243	Z5296	233124	Z5326	122333	Z5356	222112	Z5386	312312
Z5237	244211	Z5267	313241	Z5297	342241	Z5327	212333	Z5357	311221	Z5387	233233
Z5238	123312	Z5268	112413	Z5298	332312	Z5328	133212	Z5358	123433	Z5388	132132
Z5239	331131	Z5269	322314	Z5299	241221	Z5329	344321	Z5359	332341	Z5389	112334
Z5240	343431	Z5270	022314	Z5300	243432	Z5330	334321	Z5360	242213	Z5390	333223
Z5241	234324	Z5271	121312	Z5301	043432	Z5331	223212	Z5361	112132	Z5391	221333
Z5242	121211	Z5272	231341	Z5302	324113	Z5332	023212	Z5362	322432	Z5392	331234
Z5243	213121	Z5273	313212	Z5303	233323	Z5333	122344	Z5363	333434	Z5393	234133
Z5244	324234	Z5274	013212	Z5304	134233	Z5334	321233	Z5364	033434	Z5394	341242
Z5245	341312	Z5275	332334	Z5305	311232	Z5335	343231	Z5365	133313	Z5395	224323
Z5246	212243	Z5276	243243	Z5306	232322	Z5336	324311	Z5366	324311	Z5396	133124
Z5247	222424	Z5277	333441	Z5307	132413	Z5337	212223	Z5367	132132	Z5397	323233
Z5248	131331	Z5278	242312	Z5308	343323	Z5338	124131	Z5368	133432	Z5398	023233
Z5249	333421	Z5279	113241	Z5309	224242	Z5339	312134	Z5369	241243	Z5399	023233
Z5250	221311	Z5280	013241	Z5310	232421	Z5340	241322	Z5370	343134	Z5400	121233
Z5251	224132	Z5281	133434	Z5311	323414	Z5341	122241	Z5371	131241	Z5401	334132
Z5252	332244	Z5282	342342	Z5312	231332	Z5342	241122	Z5372	332424	Z5402	232223
Z5253	323332	Z5283	212234	Z5313	213132	Z5343	332222	Z5373	224312	Z5403	243333
Z5254	211213	Z5284	133111	Z5314	334213	Z5344	313322	Z5374	112224	Z5404	043333
Z5255	121123	Z5285	111342	Z5315	323343	Z5345	344333	Z5375	221131	Z5405	223432
Z5256	234434	Z5286	123343	Z5316	242231	Z5346	342421	Z5376	334244	Z5406	224123
Z5257	313131	Z5287	341134	Z5317	232232	Z5347	222342	Z5377	313344	Z5407	132334
Z5258	324412	Z5288	211343	Z5318	223412	Z5348	234124	Z5378	213211	Z5408	333241
Z5259	024412	Z5289	221124	Z5319	324131	Z5349	322212	Z5379	122122	Z5409	244323
Z5260	124234	Z5290	322131	Z5320	334431	Z5350	322333	Z5380	232434	Z5410	324433
Z5261	344212	Z5291	312321	Z5321	034431	Z5351	233244	Z5381	311123	Z5411	122133
Z5262	311313	Z5292	233211	Z5322	241113	Z5352	324122	Z5382	312413	Z5412	222244



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Z5413	323323	Z5476	233231	Z5539	312222	Z5568	311234	Z5597	113324	Z5626	321123
Z5414	222411	Z5477	331342	Z5540	331324	Z5569	124434	Z5598	241212	Z5627	334231
Z5415	134244	Z5478	313221	Z5541	031324	Z5570	024434	Z5599	133113	Z5628	243313
Z5416	333122	Z5479	241342	Z5542	212322	Z5571	323321	Z5600	233332	Z5629	131221
Z5417	244334	Z5480	333241	Z5543	322212	Z5572	232423	Z5601	233332	Z5630	213134
Z5418	132424	Z5481	234131	Z5544	322311	Z5573	032423	Z5602	211233	Z5631	331411
Z5419	322221	Z5482	331223	Z5545	344333	Z5574	231233	Z5603	321134	Z5632	134132
Z5420	231132	Z5483	031223	Z5546	241331	Z5575	323431	Z5604	333243	Z5633	341224
Z5421	312332	Z5484	132231	Z5547	241331	Z5576	121231	Z5605	322331	Z5634	311324
Z5422	244433	Z5485	332134	Z5548	241223	Z5577	131133	Z5606	134222	Z5635	212434
Z5423	044433	Z5486	332431	Z5549	333124	Z5578	222231	Z5607	123334	Z5636	133311
Z5424	124322	Z5487	233242	Z5550	342243	Z5579	232313	Z5608	322313	Z5637	223221
Z5425	234344	Z5488	313342	Z5551	342243	Z5580	323341	Z5609	234122	Z5638	312132
Z5426	034344	Z5489	331212	Z5552	222123	Z5581	233422	Z5610	212313	Z5639	342313
Z5427	343122	Z5490	124313	Z5553	243331	Z5582	242122	Z5611	133134	Z5640	313412
Z5428	124223	Z5491	341121	Z5554	342232	Z5583	322441	Z5612	323413	Z5641	243322
Z5429	212342	Z5492	041121	Z5555	134123	Z5584	241344	Z5613	231211	Z5642	224213
Z5430	324423	Z5493	242323	Z5556	343343	Z5585	223241	Z5614	131333	Z5643	123322
Z5431	024423	Z5494	312343	Z5557	133443	Z5586	133323	Z5615	232234	Z5644	134213
Z5432	312242	Z5495	221313	Z5558	244134	Z5587	334134	Z5616	313313	Z5645	222334
Z5433	234333	Z5496	312343	Z5559	343321	Z5588	321242	Z5617	344133	Z5646	323231
Z5434	214133	Z5497	123431	Z5560	241232	Z5589	342433	Z5618	231211	Z5647	023231
Z5435	324344	Z5498	331231	Z5561	133324	Z5590	132341	Z5619	224134	Z5648	312434
Z5436	223122	Z5499	331323	Z5562	213342	Z5591	213233	Z5620	131234	Z5649	234113
Z5437	324223	Z5500	234223	Z5563	123213	Z5592	213233	Z5621	222413	Z5650	113223
Z5438	134332	Z5501	342333	Z5564	332323	Z5593	323133	Z5622	331313	Z5651	344324
Z5439	212133	Z5502	324232	Z5565	244434	Z5594	344122	Z5623	344134	Z5652	131343
Z5440	313234	Z5503	234322	Z5566	124242	Z5595	313232	Z5624	313213	Z5653	243122
Z5441	124342	Z5504	133241	Z5567	322131	Z5596	341341	Z5625	013213	Z5654	213242
Z5442	324432	Z5505	241131								
Z5443	231121	Z5506	122342								
Z5444	344143	Z5507	022342								
Z5445	121222	Z5508	333234								
Z5446	223331	Z5509	311333								
Z5447	134343	Z5510	222433								
Z5448	132231	Z5511	123233								
Z5449	322133	Z5512	221133								
Z5450	334343	Z5513	313243								
Z5451	124122	Z5514	321343								
Z5452	224341	Z5515	132134								
Z5453	243124	Z5516	032134								
Z5454	334224	Z5517	332132								
Z5455	323324	Z5518	243232								
Z5456	332242	Z5519	232344								
Z5457	231231	Z5520	124221								
Z5458	321231	Z5521	213123								
Z5459	321121	Z5522	244222								
Z5460	243342	Z5523	132422								
Z5461	333423	Z5524	313213								
Z5462	134134	Z5525	242242								
Z5463	232241	Z5526	042242								
Z5464	341343	Z5527	042242								
Z5465	222442	Z5528	243212								
Z5466	323123	Z5529	131221								
Z5467	241234	Z5530	211341								
Z5468	134323	Z5531	131243								
Z5469	134323	Z5532	031243								
Z5470	244242	Z5533	232122								
Z5471	131131	Z5534	321233								
Z5472	223333	Z5535	232333								
Z5473	313133	Z5536	231321								
Z5474	013133	Z5537	224413								
Z5475	132312	Z5538	234241								



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Z5655	134321	Z5684	132121	Z5713	234111	Z5742	121134	Z5771	324124	Z5800	434123
Z5656	213411	Z5685	122331	Z5714	232324	Z5743	021134	Z5772	132211	Z5801	344313
Z5657	342311	Z5686	343213	Z5715	211222	Z5744	124133	Z5773	032211	Z5802	322211
Z5658	244132	Z5687	322344	Z5716	122131	Z5745	341231	Z5774	312211	Z5803	323411
Z5659	213213	Z5688	224231	Z5717	333412	Z5746	312411	Z5775	223311	Z5804	233321
Z5660	312244	Z5689	212131	Z5718	312241	Z5747	312411	Z5776	234232	Z5805	213234
Z5661	211123	Z5690	124232	Z5719	224332	Z5748	012411	Z5777	233132	Z5806	133122
Z5662	321332	Z5691	212331	Z5720	122223	Z5749	312121	Z5778	122234	Z5807	233321
Z5663	021332	Z5692	341432	Z5721	343112	Z5750	334424	Z5779	232221	Z5808	342111
Z5664	331113	Z5693	323112	Z5722	332233	Z5751	334411	Z5780	343441	Z5809	324342
Z5665	124412	Z5694	222213	Z5723	241311	Z5752	244233	Z5781	311122	Z5810	133223
Z5666	112241	Z5695	112322	Z5724	132433	Z5753	344333	Z5782	232221	Z5811	134341
Z5667	211211	Z5696	123242	Z5725	222134	Z5754	311131	Z5783	131322	Z5812	343121
Z5668	311234	Z5697	234312	Z5726	341244	Z5755	211231	Z5784	031322	Z5813	221243
Z5669	444411	Z5698	344124	Z5727	041244	Z5756	134323	Z5785	341211	Z5814	221213
Z5670	242132	Z5699	324324	Z5728	233224	Z5757	242411	Z5786	242121	Z5815	221122
Z5671	114324	Z5700	242134	Z5729	242334	Z5758	343433	Z5787	123411	Z5816	112233
Z5672	113212	Z5701	132112	Z5730	343442	Z5759	112213	Z5788	211121	Z5817	111223
Z5673	342412	Z5702	312334	Z5731	211334	Z5760	344113	Z5789	322441	Z5818	333212
Z5674	322223	Z5703	212221	Z5732	343211	Z5761	113441	Z5790	243133	Z5819	313331
Z5675	232113	Z5704	132112	Z5733	331331	Z5762	224211	Z5791	343424	Z5820	231123
Z5676	131224	Z5705	112321	Z5734	122423	Z5763	343413	Z5792	131124	Z5821	112323
Z5677	244213	Z5706	334434	Z5735	224112	Z5764	331241	Z5793	342133	Z5822	131221
Z5678	344322	Z5707	322234	Z5736	344311	Z5765	244123	Z5794	212311	Z5823	344431
Z5679	044322	Z5708	232121	Z5737	322122	Z5766	234232	Z5795	134411	Z5824	312112
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Z5682	321212	Z5711	021213	Z5740	341132	Z5769	344221	Z5798	122311	Z5827	232124
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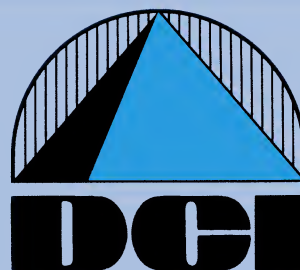
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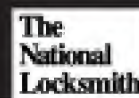
Kawasaki Series Z5001-6000

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Z5835	231244	Z5899	122422	Z5962	324434	Z5974	032343	Z5986	244343	Z5998	243344
Z5836	133131	Z5900	342124	Z5963	124212	Z5975	133342	Z5987	221344	Z5999	234331
Z5837	133131	Z5901	123121	Z5964	232323	Z5976	332343	Z5988	242422	Z6000	322334
Z5838	112134	Z5902	242244	Z5965	032323	Z5977	234432	Z5989	341334		
Z5839	334241	Z5903	333443	Z5966	333322	Z5978	131344	Z5990	234421		
Z5840	312341	Z5904	222323	Z5967	441243	Z5979	223441	Z5991	034421		
Z5841	222233	Z5905	243111								
Z5842	223131	Z5906	334222								
Z5843	121224	Z5907	112424								
Z5844	334112	Z5908	211244								
Z5845	243241	Z5909	324443								
Z5846	223422	Z5910	241124								
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Z5848	333221	Z5912	333111								
Z5849	322322	Z5913	323222								
Z5850	212421	Z5914	231134								
Z5851	121242	Z5915	124441								
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Z5856	244312	Z5920	232243								
Z5857	213321	Z5921	124443								
Z5858	133421	Z5922	111232								
Z5859	212111	Z5923	313443								
Z5860	434123	Z5924	311241								
Z5861	244321	Z5925	121321								
Z5862	343121	Z5926	334323								
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Z5864	213424	Z5928	013111								
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Z5867	124111	Z5931	244224								
Z5868	231222	Z5932	123312								
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Z5871	224343	Z5935	223342								
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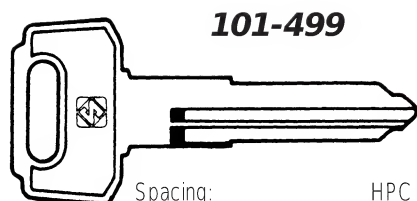


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Suzuki Series 101-499 / 6001-7000



101-499



PROFILE

Spacing:

1-.098, 2-.197, 3-.295,
4-.394, 5-.492, 6-.591

HPC 1200 CM

Code Card: MC70

Cutter: CW1011

Stop: Shoulder

Depths:

1-.276, 2-.256, 3-.236,
4-.217

Framon

Cut Start: .100

Cutter: FC8445

Cut To Cut: .100

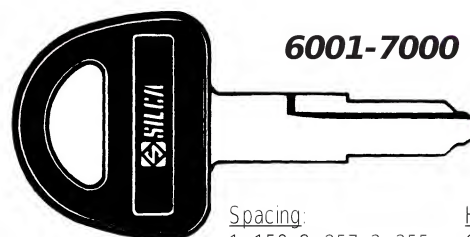
Spacing Block: #3

Stop: Shoulder

Key Blanks:

Ilco X87

Silca SZ5P



6001-7000



PROFILE

Spacing:

1-.158, 2-.257, 3-.355,
4-.453, 5-.551, 6-.649,
7-.747

HPC 1200 CM

Code Card: CMC71

Cutter: CW1011

Stop: Shoulder

Depths:

1-.295, 2-.276, 3-.256,
4-.236

Framon

Cut Start: .157

Cutter: FC8445

Cut To Cut: .098

Spacing Block: #3

Stop: Shoulder

Key Blanks:

Ilco X179

Silca SZ10R

Series: Suzuki		119	342134	139	212334	159	142134	179	421334	199	433434
101-499		120	221434	140	141334	160	311334	180	233234	200	213344
101	444234	121	244334	141	421134	161	132234	181	143334	201	431344
102	441134	122	331134	142	344434	162	424234	182	424434	202	244144
103	324134	123	422434	143	124134	163	322334	183	131134	203	311244
104	144234	124	411234	144	443134	164	232434	184	434334	204	331244
105	342434	125	114234	145	314434	165	113134	185	212134	205	242344
106	221134	126	312434	146	414334	166	131334	186	124334	206	421244
107	234134	127	231334	147	412334	167	433234	187	323234	207	312144
108	341334	128	214134	148	242234	168	243134	188	243434	208	432244
109	422234	129	432334	149	231234	169	134434	189	443334	209	313444
110	411434	130	214334	150	414134	170	324334	190	134234	210	233144
111	213234	131	434134	151	344134	171	133134	191	311134	211	323144
112	334234	132	431234	152	322134	172	213434	192	423334	212	321344
113	312234	133	314234	153	224234	173	313134	193	123234	213	413144
114	432134	134	413434	154	442234	174	343234	194	224434	214	142244
115	232134	135	211234	155	321234	175	442434	195	334434	215	421444
116	122134	136	113434	156	241134	176	332234	196	132434	216	213144
117	144434	137	331434	157	413234	177	223334	197	234334	217	422144
118	423134	138	412134	158	223134	178	123434	198	323434	218	342244



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Suzuki Series 101-499

219	424144	257	132144	295	424344	333	414424	371	123324	409	232114
220	131444	258	322444	296	134344	334	333424	372	324424	410	123214
221	314144	259	441244	297	234444	335	433124	373	344224	411	321414
222	412144	260	411344	298	334344	336	224124	374	443424	412	312414
223	124244	261	232244	299	223244	337	242324	375	243224	413	434114
224	211344	262	323344	300	323324	338	432224	376	132124	414	243114
225	442144	263	432444	301	121324	339	111424	377	233324	415	321214
226	241444	264	344244	302	431124	340	312324	378	324224	416	143214
227	122244	265	143344	303	423424	341	442124	379	343324	417	234314
228	443244	266	243444	304	421424	342	424124	380	312124	418	314214
229	121344	267	333244	305	441224	343	314324	381	134324	419	324114
230	123144	268	422344	306	331424	344	342224	382	234424	420	432314
231	343144	269	223444	307	131424	345	242124	383	334324	421	132414
232	142444	270	133244	308	113224	346	213324	384	423224	422	224414
233	241244	271	233344	309	444124	347	124224	385	213124	423	431414
234	132344	272	322244	310	411124	348	313424	386	244324	424	422414
235	312344	273	433344	311	432424	349	343124	387	434424	425	242214
236	414244	274	212244	312	311224	350	211324	388	123124	426	221314
237	131244	275	312444	313	321324	351	331224	389	223424	427	114214
238	141144	276	144244	314	244124	352	311424	390	233124	428	443114
239	341144	277	244344	315	322424	353	241424	391	424324	429	413414
240	412444	278	333444	316	241224	354	131224	392	122424	430	343414
241	242144	279	423244	317	321124	355	444324	393	313224	431	332414
242	412244	280	222344	318	212424	356	243424	394	231324	432	314414
243	231144	281	313244	319	414224	357	341124	395	332324	433	242414
244	143144	282	423444	320	412224	358	222124	396	133224	434	233414
245	442344	283	234244	321	334124	359	421224	397	433324	435	341214
246	314344	284	212444	322	221424	360	441424	398	342424	436	232314
247	332144	285	332344	323	422124	361	234224	399	114324	437	231214
248	431144	286	434244	324	232424	362	132324	400	141214	438	234114
249	113244	287	232444	325	442324	363	344424	401	433414	439	231414
250	311444	288	123344	326	142224	364	434224	402	213414	440	134414
251	224144	289	324244	327	411324	365	323124	403	333114	441	421314
252	334144	290	224344	328	332124	366	113424	404	144314	442	432114
253	433144	291	343344	329	431324	367	224324	405	122314	443	423114
254	214244	292	243244	330	214224	368	333224	406	132214	444	344314
255	321144	293	324444	331	412424	369	422324	407	342114	445	323414
256	134144	294	231344	332	443224	370	231124	408	443314	446	322314

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447 142314
448 413214
449 241314
450 212314
451 424214
452 342314
453 322114
454 243314
455 214314
456 431214
457 223314
458 223114
459 412314
460 442214



Suzuki Series

101-499 / 6001-7000

461	312214	6010	3143122	6061	4122432	6112	3241132	6163	4321122	6214	4342412
462	423314	6011	1144122	6062	1123432	6113	1242132	6164	2312132	6215	1343412
463	133114	6012	2132132	6063	3124432	6114	4243132	6165	4314132	6216	1332422
464	224214	6013	4134132	6064	4113442	6115	2244132	6166	2341212	6217	2334422
465	334414	6014	4121142	6065	1141322	6116	2231142	6167	4342212	6218	2321432
466	441314	6015	3123142	6066	3143322	6117	4232142	6168	1343212	6219	4322432
467	412114	6016	1124142	6067	1144322	6118	1233142	6169	3344212	6220	1323432
468	323214	6017	2141232	6068	4141322	6119	3234142	6170	1323232	6221	3324432
469	124314	6018	4142232	6069	2132332	6120	4211412	6171	3324232	6222	3311442
470	214114	6019	1143232	6070	4134332	6121	3213412	6172	3311242	6223	1312442
471	343214	6020	3144232	6071	1121342	6122	1214412	6173	1312242	6224	4313442
472	313314	6021	3131242	6072	3123342	6123	3221312	6174	4313242	6225	1341322
473	142114	6022	1132242	6073	1124342	6124	4223312	6175	2314242	6226	1344322
474	332214	6023	4133242	6074	4121342	6125	1213322	6176	1341122	6227	4341322
475	421114	6024	2134242	6075	2141432	6126	3214322	6177	3343122	6228	1321342
476	131314	6025	4141142	6076	4142432	6127	1231412	6178	1344122	6229	4321342
477	233214	6026	3143142	6077	1143432	6128	3233412	6179	4341122	6230	1324342
478	313114	6027	1144142	6078	3131442	6129	1234412	6180	2332132	6231	2341432
479	434314	6028	1123212	6079	1132442	6130	4231412	6181	4334132	6232	4342432
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482	331114	6031	4134112	6082	3143342	6133	1214432	6184	1324142	6235	1341342
483	444214	6032	4121122	6083	1144342	6134	4211432	6185	4321142	6236	4341342
484	433314	6033	3123122	6084	4141342	6135	3241312	6186	2341232	6237	1344342
485	241114	6034	1124122	6085	4211212	6136	1242312	6187	4342232	6238	4411212
486	331314	6035	2112132	6086	3213212	6137	4243312	6188	1343232	6239	3413212
487	422214	6036	4114132	6087	1214212	6138	2244312	6189	3344232	6240	1414212
488	113314	6037	2112312	6088	4223112	6139	3234322	6190	1332242	6241	1422112
489	213214	6038	4114312	6089	1213122	6140	3221332	6191	2334242	6242	4423112
490	311314	6039	2121412	6090	3214122	6141	2211342	6192	1341142	6243	2424112
491	433214	6040	4122412	6091	1231212	6142	4212342	6193	3343142	6244	4412122
492	344114	6041	1123412	6092	3233212	6143	1213342	6194	1344142	6245	1413122
493	134214	6042	3124412	6093	1234212	6144	3214342	6195	4341142	6246	3414122
494	222414	6043	4113422	6094	4231212	6145	1231432	6196	2312312	6247	1431212
495	124114	6044	2114422	6095	1211232	6146	4231432	6197	4314312	6248	3433212
496	411214	6045	2132312	6096	3213232	6147	1234432	6198	2321412	6249	1434212
497	144114	6046	4134312	6097	1214232	6148	3241332	6199	4322412	6250	4431212
498	334214	6047	1121322	6098	4211232	6149	1242332	6200	1323412	6251	1411232
499	324314	6048	3123322	6099	1242112	6150	2244332	6201	3324412	6252	3413232
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		6058	4133422	6109	1231232	6160	1321122	6211	2312332	6262	4423132
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		6060	2121432	6111	4231232	6162	1324122	6213	2341412	6264	4412142

Series: Suzuki
6001-7000



Suzuki Series 6001-7000

6265	1413142	6288	1434412	6311	2431342	6334	2143221	6357	4134431	6380	3233221
6266	3414142	6289	4431412	6312	4432342	6335	4143221	6358	4214211	6381	2231421
6267	1431232	6290	1411432	6313	3434342	6336	3141241	6359	2213131	6382	4232421
6268	1434232	6291	3413432	6314	4132121	6337	2143441	6360	2233131	6383	3234421
6269	4431232	6292	1414432	6315	2124131	6338	3112431	6361	3212121	6384	3233241
6270	3441132	6293	4411432	6316	2142131	6339	4114431	6362	4211241	6385	1231441
6271	1442132	6294	3441312	6317	4144131	6340	3132411	6363	2231121	6386	3233441
6272	2431142	6295	1442312	6318	2132141	6341	3132231	6364	1231241	6387	1221331
6273	4432142	6296	2431322	6319	2113221	6342	4112321	6365	1224131	6388	3243211
6274	1433142	6297	4432322	6320	3132211	6343	2112341	6366	4241211	6389	2242411
6275	3433142	6298	3434322	6321	2134211	6344	4122131	6367	1244231	6390	4241231
6276	4411412	6299	3421332	6322	3121221	6345	2121231	6368	4224121	6391	2242431
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6278	1414412	6301	2424332	6324	3112231	6347	3141421	6370	3242121	6393	4224321
6279	3421312	6302	2411342	6325	1134221	6348	2143241	6371	1243141	6394	4224141
6280	1422312	6303	4412342	6326	2131341	6349	4134411	6372	4212311	6395	1243121
6281	4423312	6304	1413342	6327	2124311	6350	4131331	6373	2213311	6396	4244121
6282	3424312	6305	3414342	6328	1122331	6351	2123441	6374	4214231	6397	1241221
6283	4412322	6306	1431432	6329	2124331	6352	2143421	6375	1212331	6398	3242321
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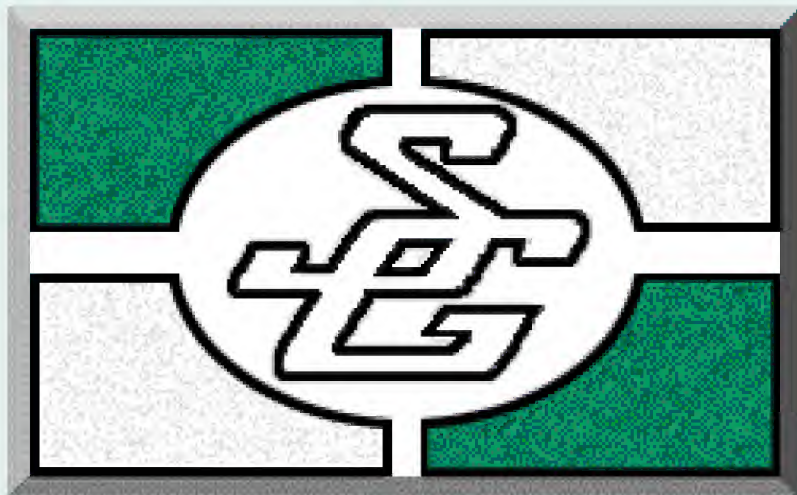
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6403	1243341	6413	3312211	6423	2323241	6433	3312411	6443	3442341	6495	3442141
6404	1214241	6414	2314211	6424	3341221	6434	4314411	6444	4421121	6496	3321421
6405	3213441	6415	2332321	6425	2343221	6435	3312231	6445	2442211	6497	1412241
6406	4232441	6416	4311331	6426	2321131	6436	2314431	6446	3341421	6498	4424121
6407	1244211	6417	2332141	6427	3341241	6437	2442231	6447	4422411	6499	3433221
6408	4241411	6418	4344311	6428	4343241	6438	1432421	6448	4414211	6500	4311421
6409	4241431	6419	3321221	6429	4331311	6439	2344311	6449	3312431	6501	4431241
6410	1224421	6420	4323221	6430	2314121	6440	1423411	6450	4424321	6502	3413441
6411	4224341	6421	2344131	6431	4331131	6441	2434421	6451	3441411	6503	1423321
6412	3242341	6422	3321241	6432	2312141	6442	2413131	6452	3442121	6504	2343241



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6453	2413311	6505	4323421
6454	2422431	6506	3341441
6455	3413241	6507	3424231
6456	1441221	6508	1443341
6457	2433131	6509	2434221
6458	3424211	6510	4323241
6459	4343421	6511	3433241
6460	2312341	6512	4431421
6461	3144311	6513	4411241
6462	1443121	6514	1431441
6463	3433441	6515	2431421
6464	2422411	6516	1414241
6465	3422321	6517	3433421
6466	1443321	6518	2343441
6467	1321231	6519	4433131
6468	3424411	6520	2313441
6469	2442431	6521	1434241
6470	4343221	6522	4323441
6471	4334431	6523	1423341
6472	1443411	6524	2332341
6473	1441421	6525	2334431
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6477	3422341	6529	4334231
6478	1412421	6530	4334411
6479	4422431	6531	4413413
6480	2343421	6532	1424423
6481	4414231	6533	2414223
6482	2421441	6534	2242413
6483	4413421	6535	4122113
6484	3424431	6536	4232423
6485	2323421	6537	4414233
6486	1412441	6538	3422323
6487	2344331	6539	4434213
6488	3422121	6540	4214433
6489	1313221	6541	2124313
6490	1431241	6542	2442433
6491	2411421	6543	2121143
6492	3422141	6544	2422413
6493	1421221	6545	3411443
6494	4314431	6546	1232323



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6547	3312213	6599	2442233	6651	2211413	6703	1324124	6755	4212324	6807	1242334
6548	2411423	6600	1432323	6652	3442343	6704	3213234	6756	2141434	6808	3131224
6549	2141143	6601	4234413	6653	1441423	6705	1234414	6757	1214214	6809	1323434
6550	3112213	6602	2212143	6654	3242343	6706	1324144	6758	1231234	6810	4142214
6551	2412243	6603	4112133	6655	4143223	6707	3441134	6759	4113244	6811	4341324
6552	4234233	6604	3132213	6656	4224343	6708	2132314	6760	3143324	6812	1214234
6553	2213313	6605	4322133	6657	1443343	6709	3343144	6761	4411214	6813	4134114
6554	1314133	6606	1424243	6658	1221313	6710	3434124	6762	1343234	6814	2341434
6555	2413313	6607	1224423	6659	1421443	6711	1213344	6763	1233124	6815	2411324
6556	2114343	6608	2123443	6660	2143423	6712	1442314	6764	1242134	6816	2132334
6557	1134133	6609	2422433	6661	3132413	6713	4232324	6765	4211414	6817	1413344
6558	4224123	6610	1142143	6662	2323443	6714	2321434	6766	1431234	6818	4133424
6559	4221243	6611	4234213	6663	1243343	6715	2112134	6767	1422314	6819	1143434
6560	3244243	6612	2323243	6664	1421243	6716	3323124	6768	2314224	6820	1413324
6561	2211213	6613	4343243	6665	4343223	6717	3143144	6769	2244334	6821	1431434
6562	3242143	6614	3422123	6666	1241243	6718	1324324	6770	1213144	6822	3413214
6563	4224323	6615	4214233	6667	4214213	6719	3213214	6771	1143234	6823	1343434
6564	1122133	6616	2242433	6668	2343223	6720	4412324	6772	2121234	6824	4133224
6565	3134223	6617	1312213	6669	3422143	6721	3324243	6773	2244114	6825	4411234
6566	2432243	6618	4312233	6670	2343423	6722	3234124	6774	1344324	6826	4423314
6567	2442213	6619	1133143	6671	1241443	6723	2424134	6775	4223114	6827	2341234
6568	3112233	6620	1212413	6672	3341223	6724	2431124	6776	1143234	6828	4232144
6569	4322113	6621	4221423	6673	4243433	6725	3221134	6777	4314114	6829	4121324
6570	1331223	6622	1241223	6674	2433113	6726	4211214	6778	1332424	6830	3144234
6571	1132213	6623	2212443	6675	1312143	6727	4212144	6779	4314134	6831	2332114
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6577	4244123	6629	3242123	6681	3442123	6733	1422334	6785	3441314	6837	4232344
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6579	3112413	6631	4414213	6683	4323223	6735	3413414	6787	2121414	6839	1434234
6580	2232443	6632	3141223	6684	2434323	6736	4431234	6788	1422134	6840	4114334
6581	4241433	6633	4424123	6685	4343423	6737	1132244	6789	1434214	6841	1234214
6582	1422143	6634	2343443	6686	2133113	6738	2112314	6790	1442134	6842	3311424
6583	3242323	6635	2413113	6687	2143443	6739	3131424	6791	1124144	6843	1332244
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6597	3121313	6649	3341443	6701	1442334	6753	3311224	6805	3234344	6857	1411234
6598	2413133	6650	1244223	6702	2231344	6754	4243114	6806	4322414	6858	1433144



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6859	4314314	6883	1344124	6907	4431214	6931	3421314	6955	3144214	6979	1431214
6860	4231234	6884	3323144	6908	4321344	6932	4432124	6956	2332314	6980	3324434
6861	1413124	6885	1321344	6909	3214324	6933	4211234	6957	2321234	6981	4314334
6862	4134134	6886	4113224	6910	1231414	6934	4322434	6958	3344214	6982	3234324
6863	4342214	6887	2332134	6911	1324344	6935	4313224	6959	1413144	6983	4334114
6864	1124324	6888	3131244	6912	3414124	6936	1343414	6960	3433214	6984	1321144
6865	2334244	6889	1123214	6913	4141324	6937	3123124	6961	4121144	6985	2141414
6866	3124414	6890	4114134	6914	4321144	6938	1211234	6962	1312424	6986	1143214
6867	4334134	6891	2231144	6915	1124344	6939	2424314	6963	2141214	6987	1121324
6868	2314244	6892	4412124	6916	2321214	6940	1211434	6964	3421134	6988	3221314
6869	1341324	6893	1343214	6917	1323234	6941	2321414	6965	2121214	6989	4334314
6870	2424334	6894	1234434	6918	1144124	6942	3413234	6966	1411434	6990	4121124
6871	4223314	6895	1144324	6919	3123344	6943	4121344	6967	1431414	6991	3433414
6872	1213324	6896	2312334	6920	3221334	6944	4113424	6968	2134424	6992	3142443
6873	4231434	6897	4133244	6921	3324214	6945	3324414	6969	2244314	6993	4421423
6874	1414214	6898	4122414	6922	1341124	6946	4432324	6970	1123434	6994	3424423
6875	3344234	6899	2231324	6923	3421334	6947	2341414	6971	1124124	6995	4124423
6876	1214434	6900	3233214	6924	2411344	6948	3413434	6972	4243314	6996	3431413
6877	4231214	6901	1312244	6925	3123324	6949	4232124	6973	1143414	6997	4433423
6878	2312134	6902	1323414	6926	3434324	6950	2314424	6974	1321324	6998	2334143
6879	3234144	6903	1233144	6927	3213434	6951	4134334	6975	3241314	6999	1241423
6880	4341124	6904	3143124	6928	1323214	6952	2231124	6976	3414324	7000	4434233
6881	2334424	6905	1132424	6929	1433124	6953	2211324	6977	3124434		
6882	2121434	6906	1414234	6930	4122434	6954	3123144	6978	4134314		

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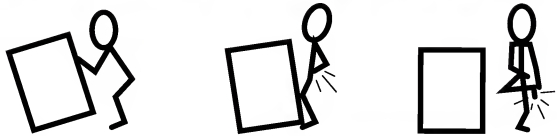
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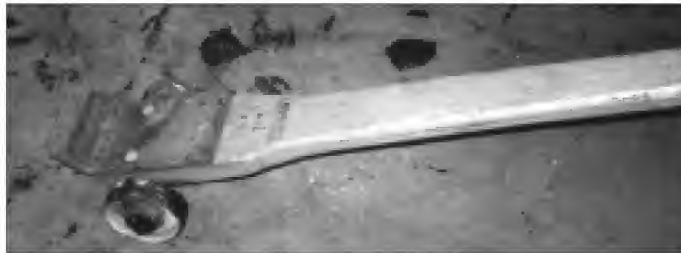
Remember: "The only heroes in safe moving are flat ones."



by Dave Franchuk

For the most part, safe sales, servicing, and opening is a very profitable business. While you may not sell the same quantity of safes that you do locks and security related items, the higher cost of safes and consequently, the higher profit margin, more than make up the difference in lower volume. It takes a good many car openings, deadbolt installations, etc. to equal the profit made on the sale of a TL-15? Servicing and openings are a specialized skills that warrant a higher fee for services rendered than the above mentioned jobs.

But there is another aspect to safe work that many safe men are reluctant to do - safe moving. Many locksmiths believe safe moving is a moving company's job. Maybe, but the



1. The Johnson Bar is a simple, basic and necessary tool for moving safes.

majority of moving companies do not move safes on a regular basis, and their basic mentality is the more something weighs, the more men you need. This is fine for larger objects, but safes have a much higher weight per volume ratio than most other objects that moving companies encounter.

Moving safes is quite different than moving people's furniture. With the

right equipment, some common sense, and a basic understanding of high-school physics (leverage, center of gravity, etc.), safe moving can be fairly easy and very profitable. (It is said by some that if you sweat while moving a safe you are working too hard!)

If you're thinking of moving safes, there are some basics to remember

First And Foremost - SAFETY

I cannot stress this enough. You must always be conscious of the direction the safe will roll, fall, tip, etc. if it gets away from you. Where ever the safe will end up is where you should not be. Inertia is a powerful force. (Remember the physics thing?) A wall can be repaired, but a life or limb cannot. So as rule number one, if you see a safe go out of control, don't try to be a hero, get out of its way. As a rule of thumb, "The only heroes in safe moving are flat ones."

Once your safety concerns are handled, safety to the surroundings can be taken care of. A piece of plywood against a wall behind a safe will protect the sheet rock from dents,



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2. The Roll-a-Lift - a super heavy duty piano dolly type of lift, makes easy work of long walks with heavy safes.

breaks and tears even while prying against it. Thin sheet steel or 1/4" masonite will protect the floors. And don't forget about protruding dials, hinges, handles, etc. when rolling a safe in or out of a building, allowing them to tear up doors, corner moldings, etc.

Equipment

There are many useful tools on the market for safe moving. Some of these are absolutely necessary, some are "nice to have" conveniences, and some are expensive toys. You do need several pieces of thick wall galvanized (to prevent rusting) pipe with

diameters ranging from 1/2", 1", to 1-1/2", and cut into 28" and 30" lengths. One person can easily roll a 1500 pound safe on pipes.

Using a prybar (you'll need two or three in 34" lengths), pick one end of the safe up just enough to slip a 1" pipe under the bottom. Check first to make sure the safe has a solid bottom. Many fire safes are skirted. With one end of the safe up on a pipe, reposition your pry bar to get a better hold and lift the safe up enough to slide another pipe all the way to the middle (or just past) of the safe. Let the safe down on the two pipes and start rolling. Lay

additional pipes down, leapfrogging them as you go. (Hint - use two people for this procedure as the safe will roll on the pipes easier if you don't have to stop each time. Remember, this inertia working again.)

The different size pipes are mainly for changing directions. Rather than twisting the safe 90 degrees, pry it up far enough to put the 1/2" rods crosswise on top of the 1" pipes. Then roll the safe from the two layers of pipes sideways on to the 1-1/2" pipes and continue as before. Remember to always have at least two pipes under the safe (and spread apart) at all times. If you start to run off the pipes, the tipping safe can do a number on linoleum and toes.

If you're going to be working with safes over 1500 to 1800 pounds, a short prybar may not be enough for lifting. Your local tool house or tool mail-order catalog should have something called a "Johnson Bar," or similar tool. (See photograph 1.) It is a 6' to 7' oak prybar with a very thick tapered steel end on it. What makes it so effective is that the prying end of it is on wheels. One man can lift/pry up over 3000 pounds of safe. And the wheels allow him to turn, twist, and move it.

Using pipes for moving is OK for short distances, but is time consuming and tiring for long distances. Pallet jacks have their place in the moving business, but in this writer's opinion they should be left for jockeying safes around in the warehouse. With only three wheels, a handle for pulling (but nothing for pushing), a poor center of gravity, and a tendency for people to raise it higher than necessary, the pallet jack is just short of dangerous.

A much better piece of equipment for moving safes is a set of "Roll-a-Lifts." (See photograph 2.) Resembling piano jacks, but much heavier duty, they strap onto each side of the safe and then lift the safe via hydraulic jacks. Once off the ground the whole assembly rolls about on 2" wide steel swiveled wheels. Two men can easily roll 3000 pounds or more with this tool.

Always use a ratcheting strap of at least 2" width to hold the lifts onto the safe and be extremely cautious when not on level ground as the safe can easily roll away on you. (Again, gravity and inertia.) Your local rental company should have these until you



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3. A properly constructed and equipped trailer is essential to safe moving. This safe weighs 4,000 pounds (2 tons!).

have moved enough to afford your own set. Plan on spending about \$1,500 for a set capable of lifting over 8,000 pounds.

Once you get the safe moved, you'll need to haul it away on something. Some safe riggers use a big truck with an electric end-gate lift, but I have found that a trailer is much more versatile. When looking for one, spare no expense; get the best one you can afford. Better yet, have one built to your specifications. It should be fairly low to the ground, include a tilt bed, and have either a tandem, walking or floating axle, or a "Torque Flex" single axle capable of carrying at least 5,000 pounds.

Be sure to get a pivoting hitch jack with a wheel so that it can be unhooked from your vehicle and moved around with the safe still loaded. Also, trying to get by on half-bald second-hand tires is only inviting trouble. Buy the best. A double geared winch on the front is also a must. Later on, when you can afford it, you might want an electric winch, but it is not a necessity. (See photograph 3.)

When loading the safe, keep it in line with your trailer. Wrap another strap around both safe and the Roll-a-Lifts for safety, and use the winch to pull the safe onto the trailer. We have actually pulled a 5,600 pound cannonball safe out from inside a bank, through the lobby, down the



4. Electric carts and dollies are also useful for safe moving.

sidewalk and onto the trailer using the winch with a 50' cable and a tow strap. One person cranked the winch while two others guided the safe through the doorways, etc. And nobody broke a sweat doing it, either.

Once the safe is on the trailer, leave it the rollers attached, but lift the

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safe onto wood blocks and off the rollers. Then secure the safe with come-alongs, chains and chain-binders, etc., to the bed of the trailer. (Hint - eye bolts can pull apart. Use heavy U-bolts and through bolt both ends through the steel trailer bed.

Some miscellaneous things you'll need include: several short lengths of 2"x4"s and 4"x4"s for blocking, going over ledges, etc. Several 3" square, 1/8" to 1/4" thick pieces of steel used for leveling the safe once it is in place. (Leveling is an important part of safe installation. A door swinging due to an unlevel safe can cause serious injury

to those in the way.) As was mentioned earlier, prybars of various lengths are a must. You might also find one or two small hydraulic bottle jacks and maybe even a hydraulic floor jack on wheels that will come in handy. Rugs for padding/ protection are also useful.

Other items you might eventually want include a standard appliance style dolly for the lighter safes, a lift-type dolly (hydraulic or cable operated) for stacking safe deposit box nests, and an electric stair-climbing dolly (shop around for this item.) They each have their own

unique features.. (See photograph 4.)

The more safes you move, the more you will realize the need for certain tools and moving aids. Experience is a great teacher. Some of the above mentioned equipment can be acquired at auctions, store closings, etc. Don't be in a hurry to buy everything new and right away. Rent what you can while looking for bargains.

A fairly new safe moving tool on the market is Lockmaster's "Floatmaster." This actually lifts a safe on a cushion of air. You have to see it in action to believe it! If you plan on moving safes such a gun safes in people's homes over expensive carpet, tile, marble, wood floors, this device is worth considering.

The third item to consider is pricing; This can be somewhat difficult. The moving companies base their prices on how many man-hours the job will take. But, since most of the time all you'll need is two people with common sense and experience, you'll need to charge by the difficulty of the job, your time, and the equipment involved. Your first few jobs might not be great money makers, but you will get a better idea of how long it takes for certain tasks. Then again, no two jobs are alike.

As an added bonus of safe rigging, sometimes you will get calls to move a safe off the premises because the owner doesn't want it and can't move it himself. This is a great way to acquire safes with only your time invested. Offer to move it away for free providing you keep the safe. Most of the time they will be locked up and you can gain experience in moving, drilling, manipulating (in the comfort of your own shop), repairing and rebuilding, and selling safes. Even some of the very old, obsolete safes that are not fit for reselling can be stripped of their pads. These hard-to-find parts are worth their weight in gold to you or other safemen.

I hope this may have taken away some of the apprehensions you may have had about safe moving and will strongly consider it in your list of skills.

The author, Dave Franchuk, CPL, is owner of Guardian Lock & Safe Co. of Bismarck, ND. 



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Access & Institutions

Continued from page 90

this is often an ongoing, continuous printout.

One of the latest advances is video imaging, allowing a video graphic image of the cardholder to appear on the computer screen as the person attempts to access a secure area. By comparing this to the image from the CCTV camera, using a loaned or stolen card can be all but eliminated.

Those using the system usually have no idea how complex it really is. In many cases, students may not even notice the PIR or electric strike. These devices are not only unobtrusive, they are also easy to use. No keys to lose. No code numbers to remember. Just place the prox card against the reader and the door is open. What could be simpler?

Card readers, CCTV, computer technology, time-lapse recorders, and fire and burglar systems can be fully integrated. Institutional locksmiths are now able to provide a very high degree of security while still maintaining a very user-friendly

atmosphere. **INL**

The Lighter Side

Continued from page 82

"Seen what?" I mumbled from beneath the covers.

"Our ad on Cable TV. It was just on."

Forcing one eye open, I squinted at the oversized red numerals displayed on the bedside digital clock. "1:23 a.m.," radiated across the now-darkened room. I lay there, while Don's breathing turned into soft, steady snoring, wondering how often our ad would be showing at such a late hour. Such is the fate of "best time available" advertising, I was to learn.

But our ads were apparently seen by the public, nonetheless. Every day, some customer would comment on our burglar.

"I've been trying to figure out which one of you guys was in that ad," one man said. "It was kinda hard to make out the face."

He never fully comprehended that we had engaged an actor to be in the ad, and that the reason he couldn't

recognize the face was that our "burglar" was wearing a black mask.

"How's business been?" another customer inquired. "Are things beginning to pick up any?"

"We've been real busy, the last couple of weeks," Ted replied to the rancher.

"Well, are you going to be having a sale, before you close?" asked a cowboy who had accompanied the man to our store.

"I don't understand," Ted replied.

"In your ad, you said business had been so bad, you were going to change your career and move back to San Antonio," the cowboy said. "I was wondering if you were going to put everything on sale, before you leave."

I'm not sure we ever fully convinced the men that our ad was supposed to be portraying a thwarted fictional burglar, and was not an announcement of business closure.

"I just want to know one thing," the rancher finally said as he and his cohort turned to leave. "Who was that masked man?" **INL**



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INDUSTRY MEETINGS

July 9-15, 1995

Associated Locksmiths Of America
1995 Annual Convention and
International Trade Show,
Orange County Convention Center,
Orlando, Florida, *Contact: Becky
Martinez for details (214) 827-1701.*

August 3-6, 1995

Clark Security Products' 1995 Trade
Show & Educational Conference,
Holiday Inn Int'l Airport, Denver, CO
*Contact: Pam Engdahl
at (619) 974-5273.*

August 11,12,13, 1995

North Carolina Locksmith's
Association Quarterly Meeting,
Charlotte, NC *Contact: Kathy Stewart
at (910) 578-8865.*

August 24-27, 1995

Clark Security Products' 1995 Trade
Show & Educational Conference at
Turf Valley Hotel & Country Club,
Ellicott City, MD

*Contact: Pam Engdahl
at (619) 974-5273.*

September 8-10, 1995

The Association of Ontario
Locksmiths Annual Convention,
Sheraton Toronto East Hotel,
Scarborough, Ontario.
(416) 321-2219.

September 11-14, 1995

ASIS Announces 41st Annual
Seminar & Exhibits Security's Hot
New Rhythms, New Orleans
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Accredited Lock Supply Co.
21st Anniversary Trade Show,
Secaucus, NJ. *Contact: Norman Koller
(800) 652-2835.*

September 23, 1995

Doyle Lock Supply, Inc.
Annual Dealer Trade Show, Raddison
Conference Center, Minneapolis,
MN. *Call: (800) 333-6953.*

September 27-October 1, 1995

The Greater Philadelphia Locksmiths
Association (GPLA) convention,
Exhibitors call Don Amole
(215) 288-5588, Registration
call Ron Blevins (610) 444-5550.

October 1, 1995

The San Francisco Bay Area
Chapter of the California Locksmith
Association 6th Annual Locksmith
Flea Market, Centennial Hall, room 4,
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TEST DRIVE



Taking Industry Products for a Spin Around the Block

PCSC'S ECLIPSE II

PRODUCT: The Eclipse II Card & PIN Access Control System by Proprietary Controls Systems Corporation, 18528 Dominguez Hills Drive, Rancho Dominguez, CA 90220-6436. Phone (310) 638-0400. Available through PCSC distributors. Suggested list price to end user is \$750.

PRODUCT DESCRIPTION: The Eclipse II Card & Pin Access Control System is a sophisticated, expandable single door card reader and keypad access control system.

Both the reader and the keypad are integrated into a single unit that is roughly 6"(w)x6"(h)x2"(d) in size.

The metal cover's attractive beige powder coated finish, matches most interiors. After installation, the cover is held to the system's mounting plate via a tamper resistant screw. A standard #2 Phillips head screw comes with the packaged unit for installation purposes.

Included on the front of the unit is an LCD readout for quick and easy observation of the door and unit status. The 12 digit, phone style keypad is found directly below the LCD. The swipe reader is found to the right of the LCD.

FRIENDLINESS: With any electronic lock, friendliness is contingent on two factors: Ease of installation and ease of programming.

Installation is easy. Run the appropriate wiring. A back or mounting plate is attached to the wall, typically a single gang box.

Make the cable connections, mount the Eclipse to the mounting plate and program.

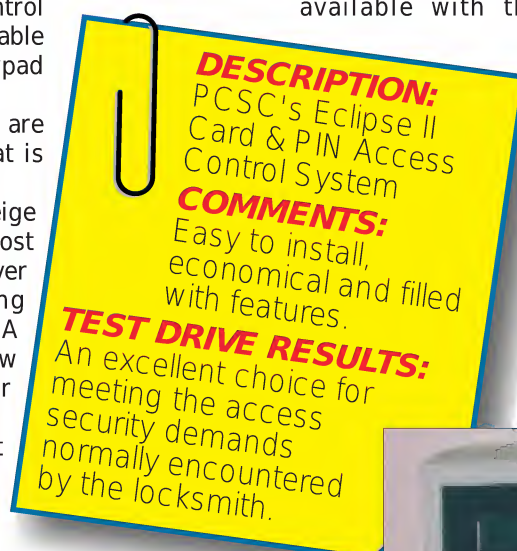
Programming the unit requires a programming card and some time to read and understand the varying functions that are available.

It should be noted that the sophistication of this unit requires a locksmith to do his homework before

going out to the field.

FEATURES: The Eclipse RP-SE and RX2 units come standard 1000 separate card holders and are upgradeable to 4000 users. The RP-SEU (universal) and RX2 Universal units come standard 400 users and are upgradeable to 2000 users.

Three swipe card technologies are available with the



Eclipse II. The RP350-SE utilizes Pro Tech, the RP450-SE features the PCSC magnetic stripe, and the RP450U-SE uses magnetic stripe with Universal ABA Track 2.

Also offered on this system are programmable door status and remote egress inputs; and local alarm, alarm panel, panic, and printer outputs.

Shielded cable/wiring and a power supply (recommended 400mA, 12VDC) are required for installation and must be purchased separately. The Eclipse unit does not power the electric lock or strike. A separate source must be provided for the lock/strike.

Wire connections are made through MTA 156 connectors, provided with the unit, and require the proper AMP tool and head for making the cable/wire connections.

COMMENTS AND SUGGESTIONS: Little can be done to improve the versatility of the Eclipse unit. However, some improvements can be made to the manual to allow the less experienced electronic locksmith to work with the system. The current manual is written towards installers having experience in alarm/access control panel installation and programming. Offering a simpler manual may allow the less experienced yet still capable locksmith the ability to install and operate this system.

For example, showing installation procedures before programming may follow a more logical sequence of events. Plus, a list of specialty tools, necessary equipment and supplies may be better set forth in the beginning rather than announced in the text or in the appendix. Also, the relationship between varying operations and functions could be made more clear. (Between the Panic Feature and the assignment of a Duress Code, for example.)

All in all, to reach a broader range of capable locksmiths, the manual could be more concise, streamline; and formatted for easier reading.

CONCLUSION: For locksmiths serious about access control, the Eclipse II Card & PIN Access control system is an economical and sophisticated choice for a variety of security applications. **TL**

